

Fig. 1

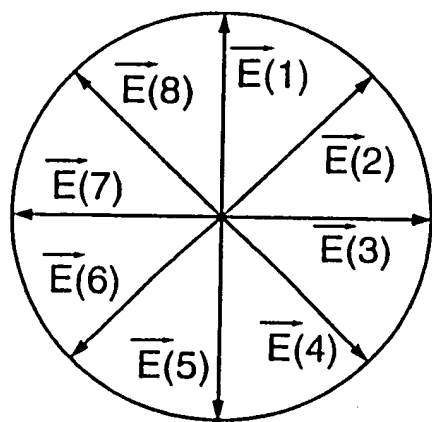


Fig. 1A

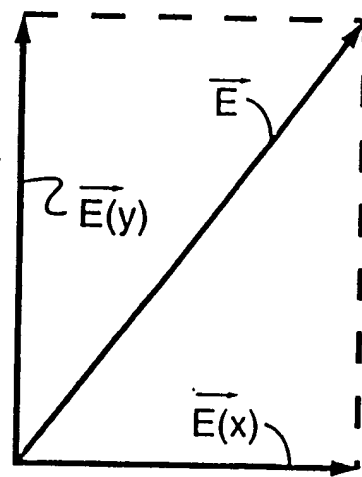


Fig. 1B

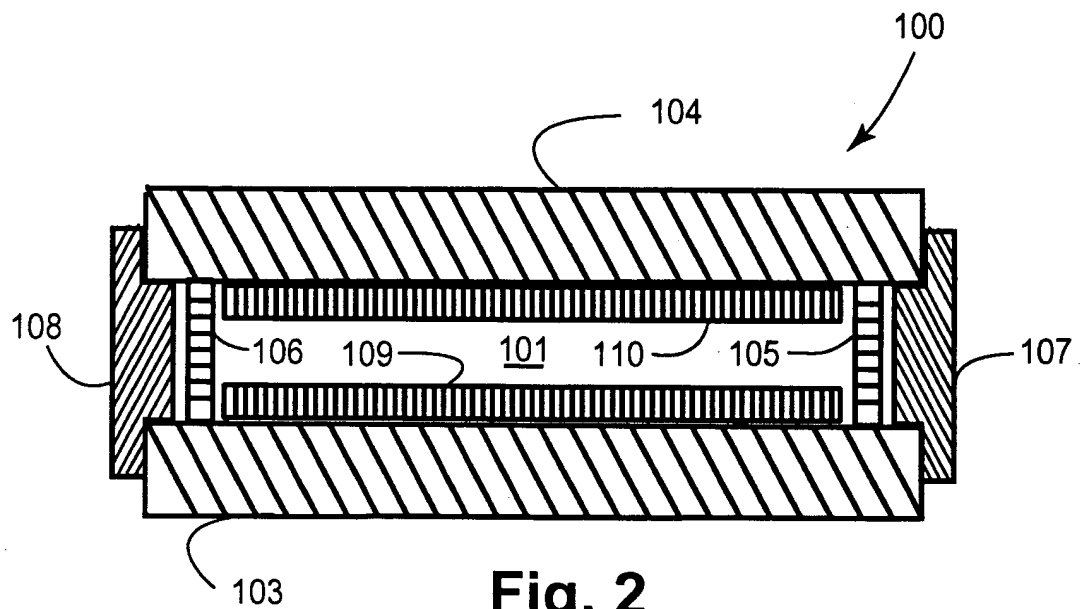


Fig. 2
(Prior Art)

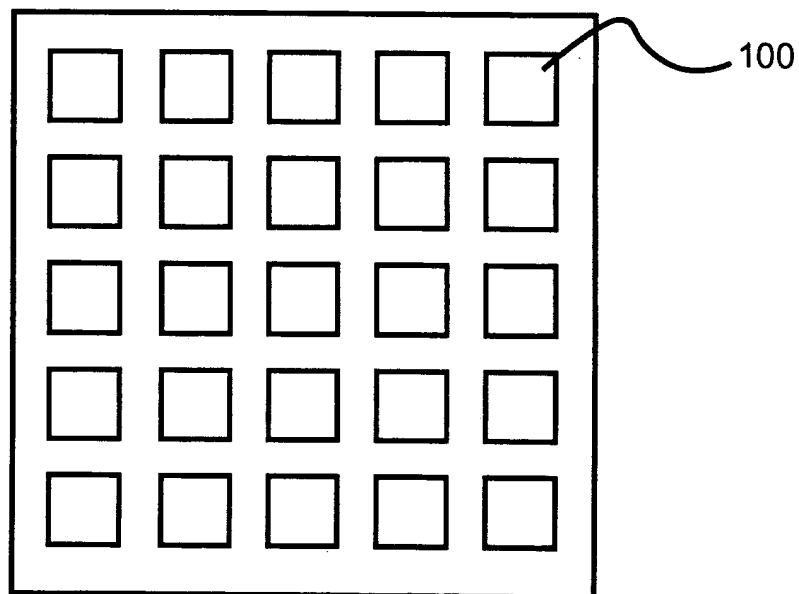
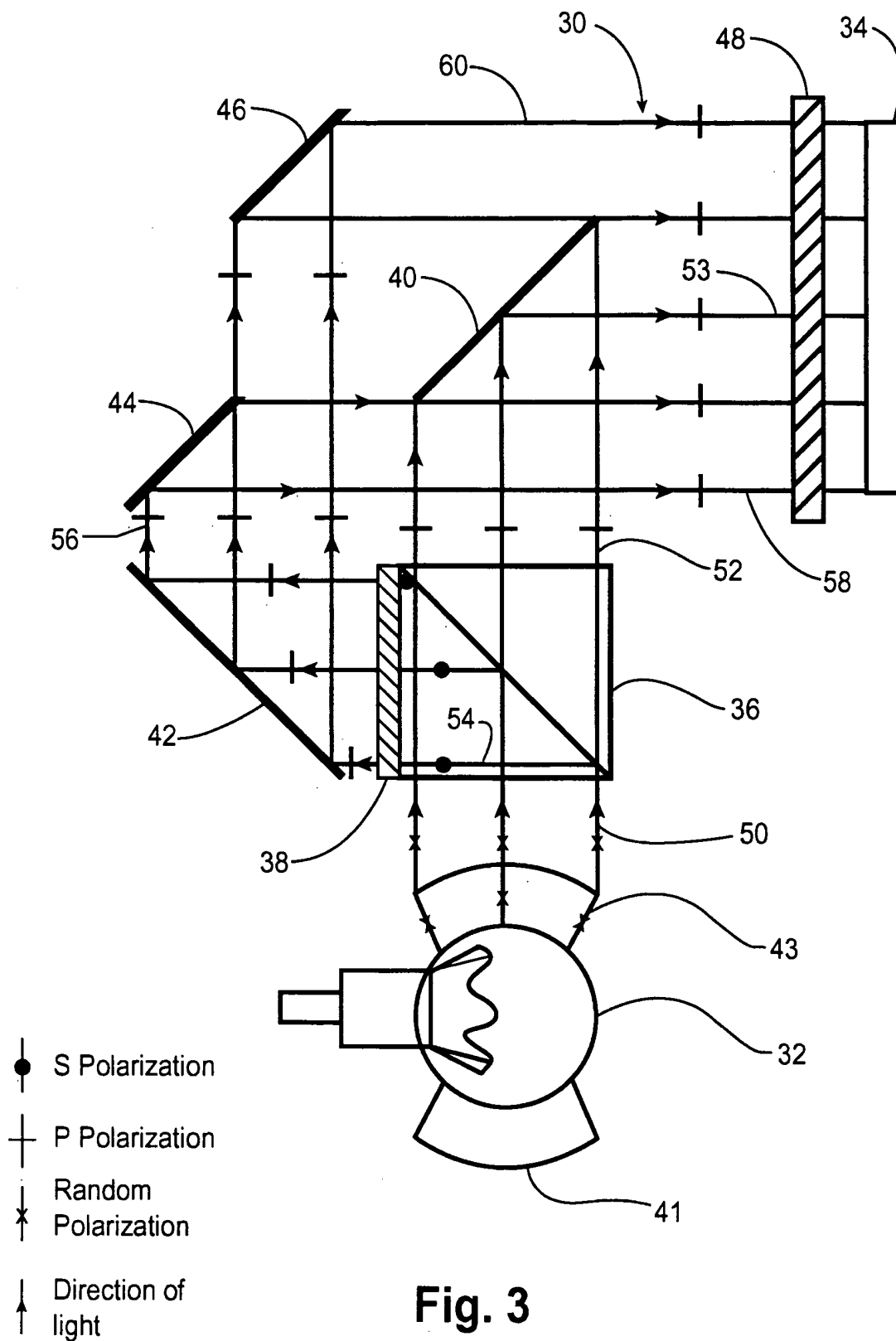


Fig. 2A



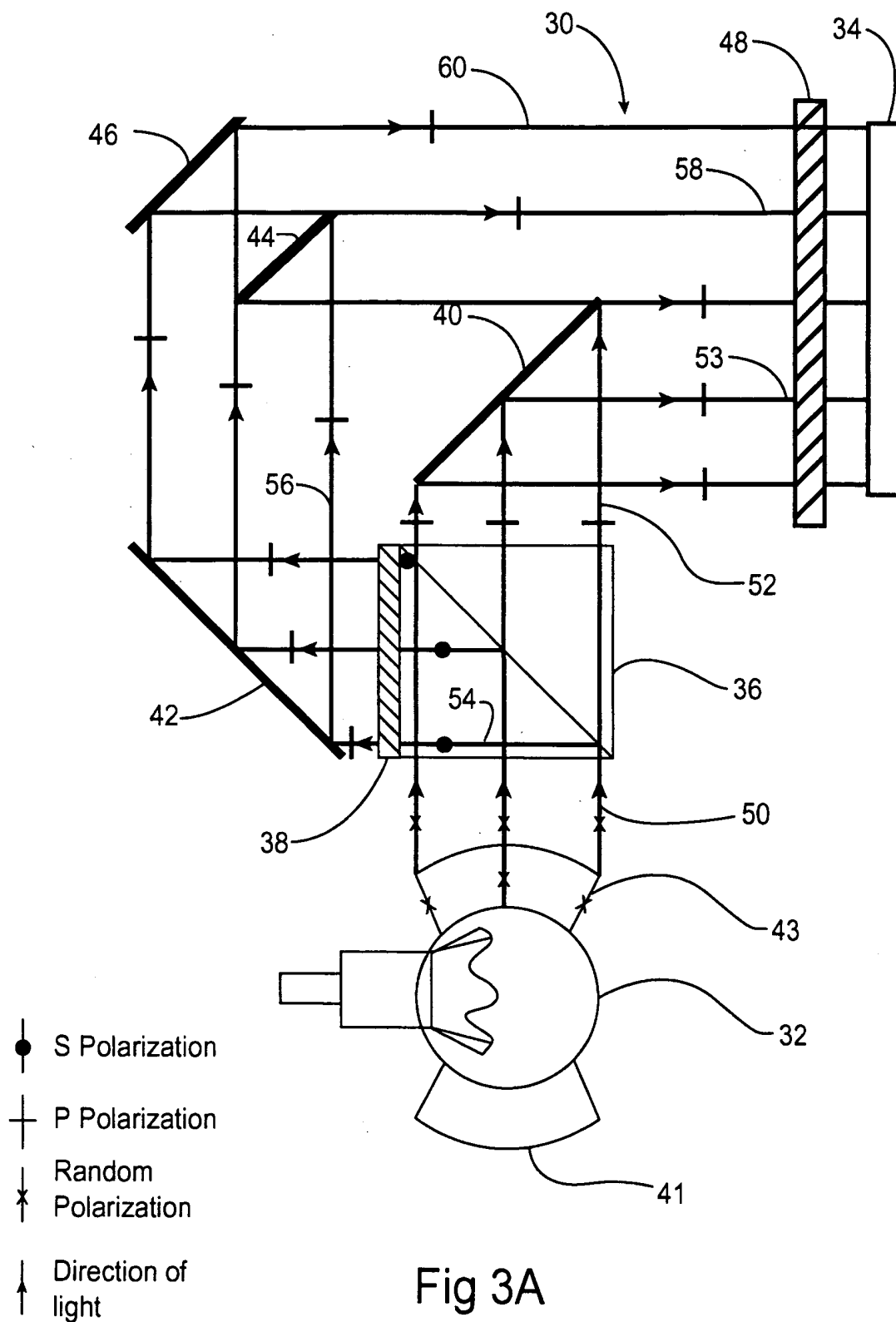


Fig 3A

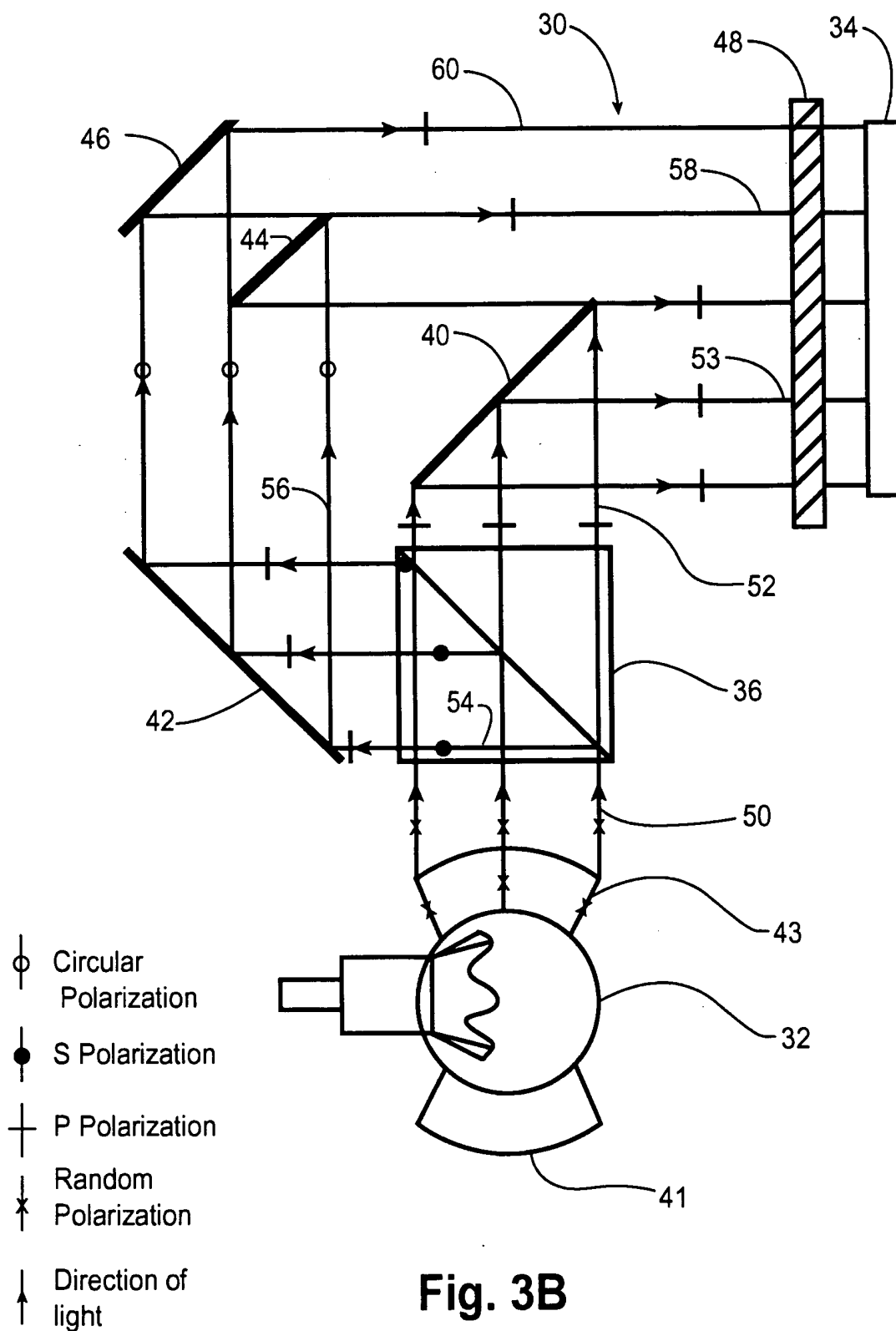


Fig. 3B

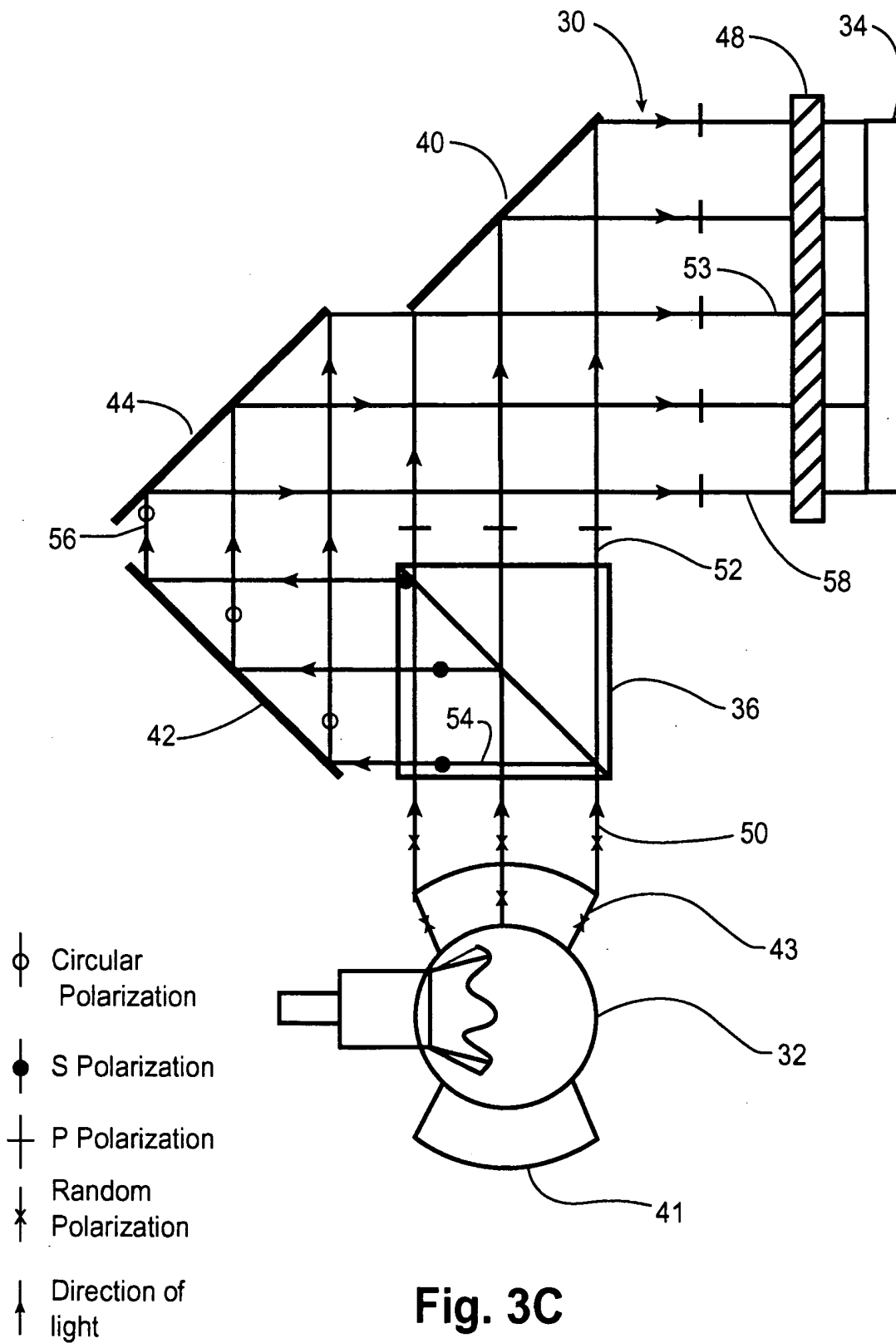


Fig. 3C

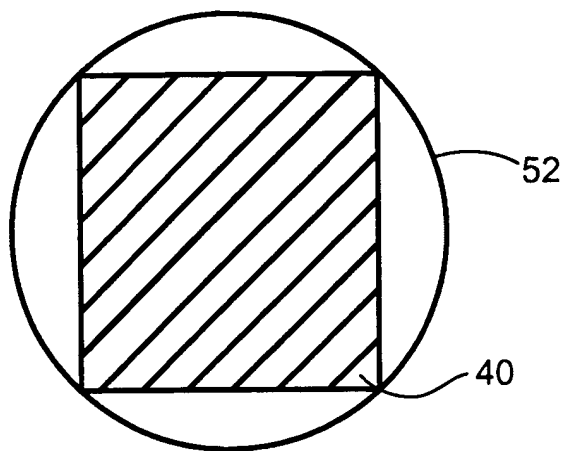


Fig. 4

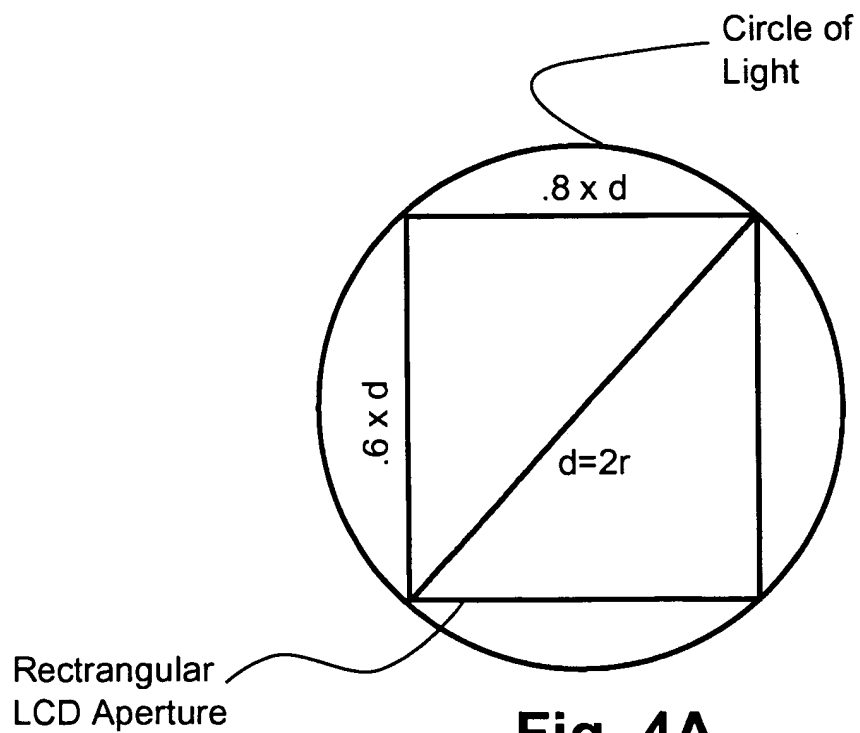


Fig. 4A

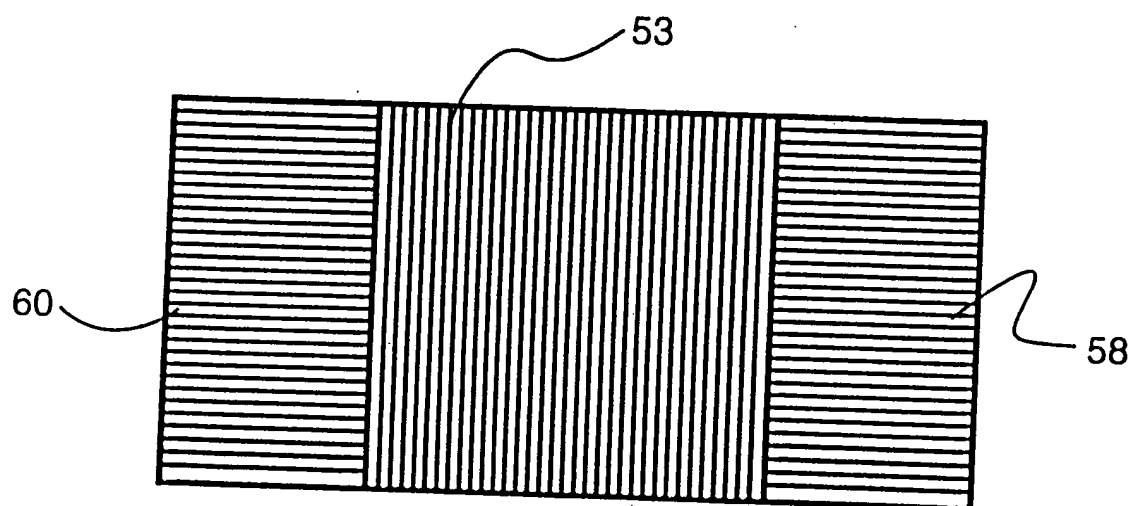
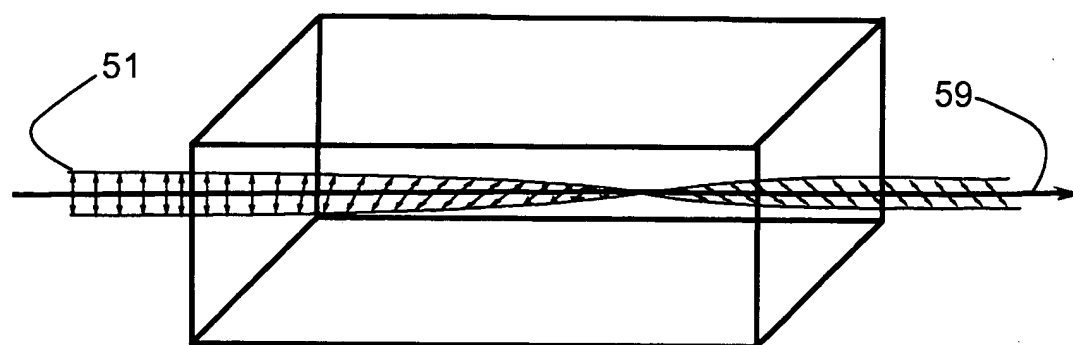
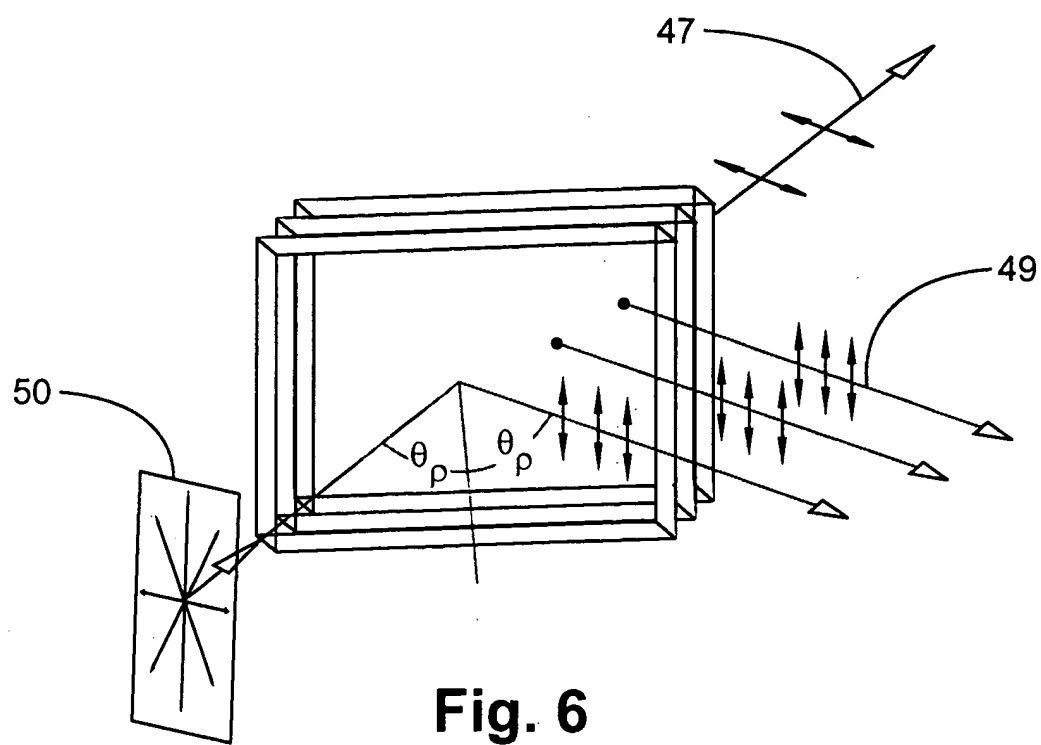


Fig. 5



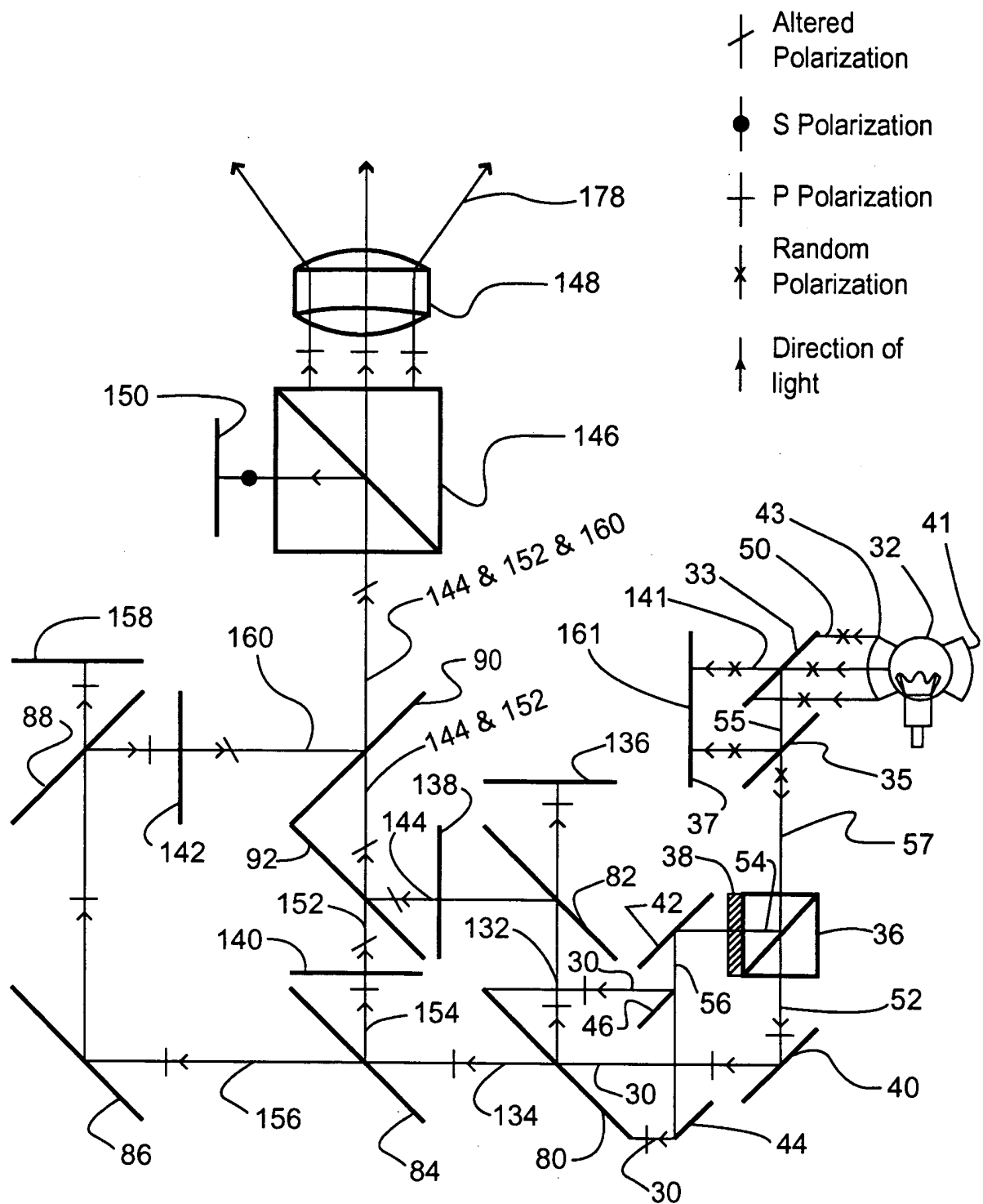


Fig. 8

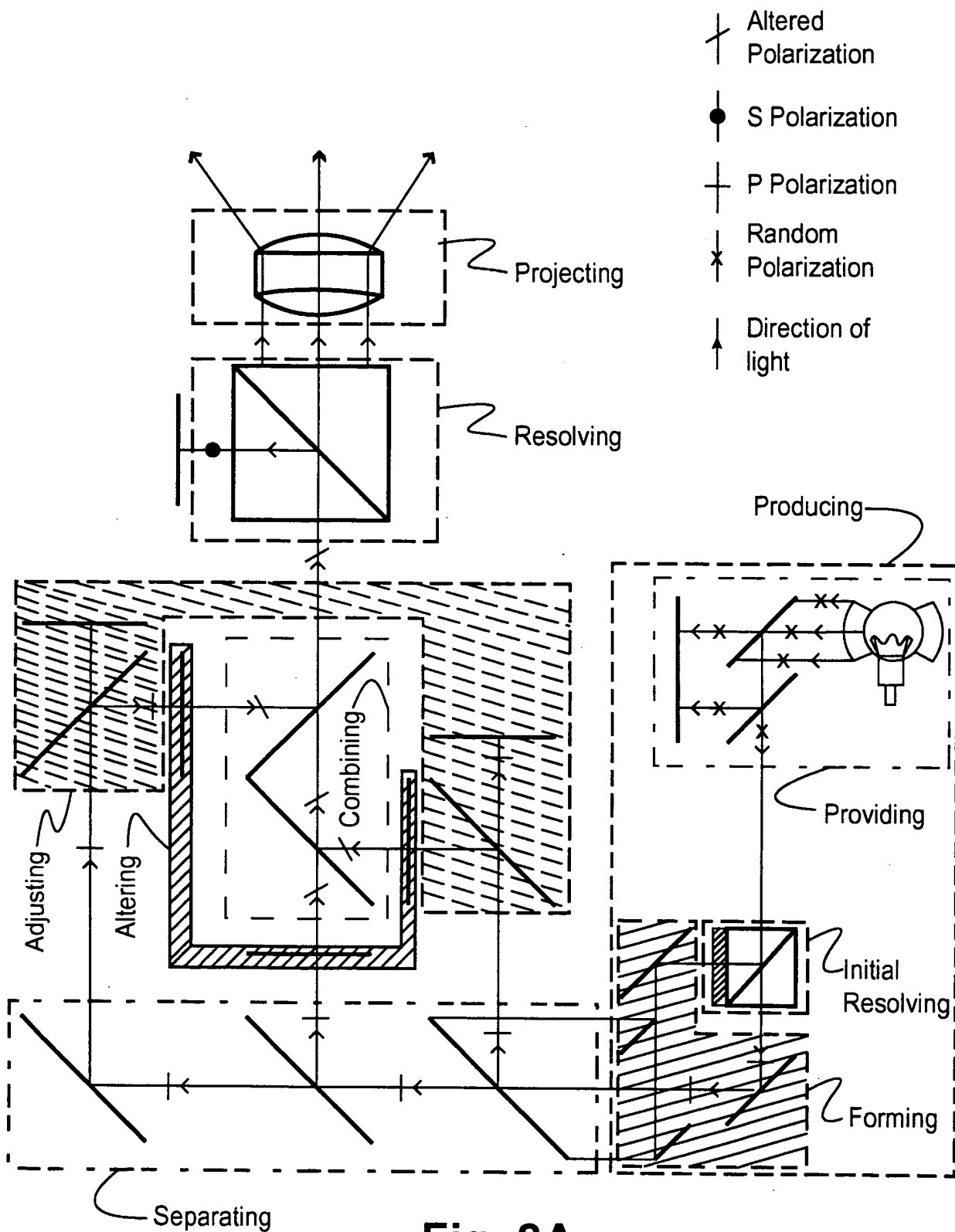


Fig. 8A

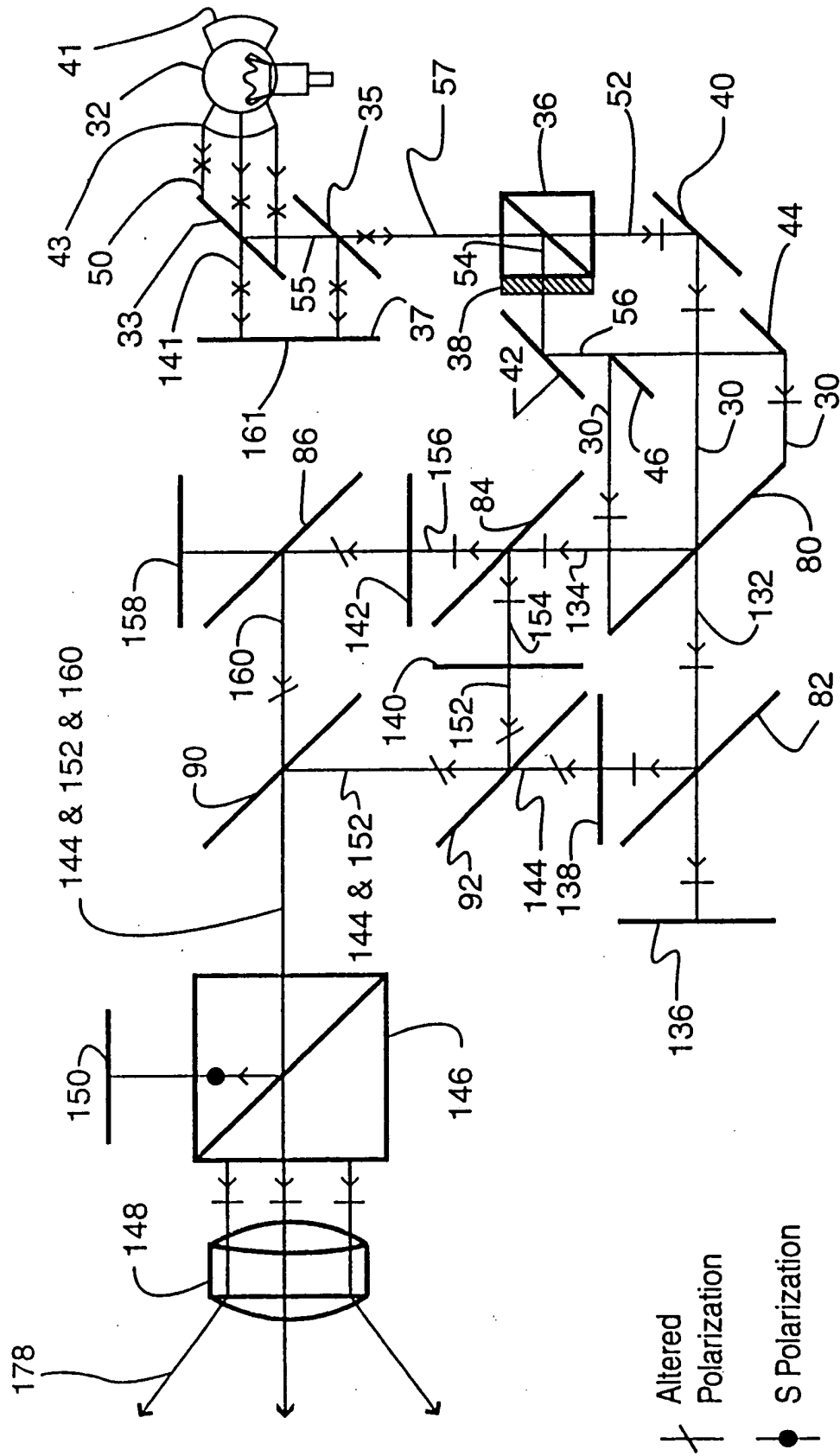


Fig. 8C

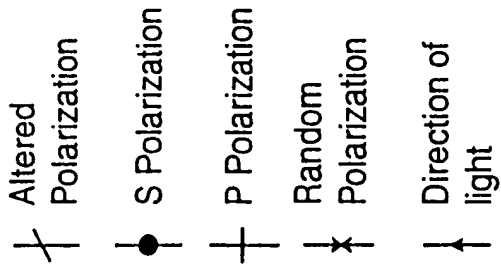
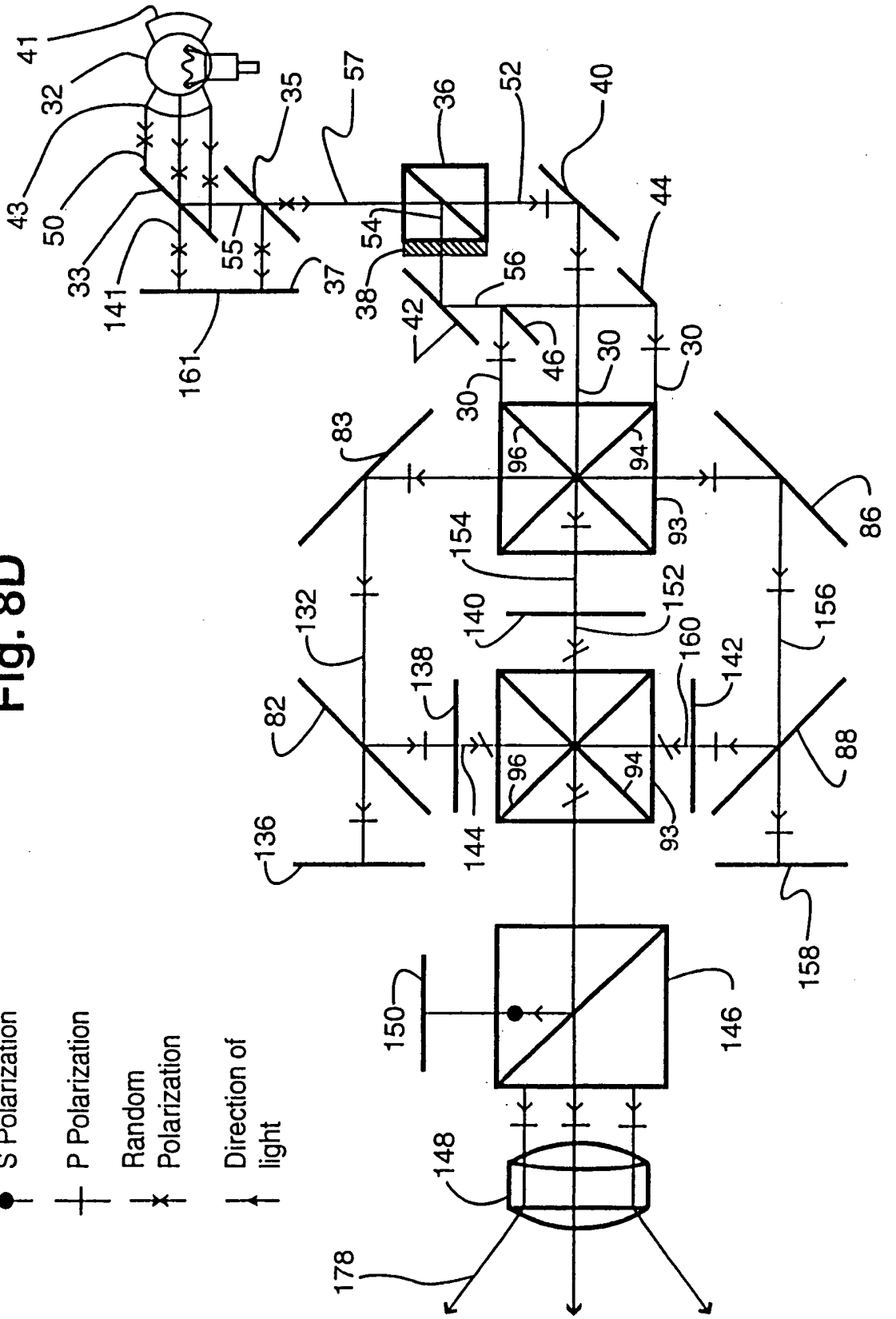


Fig. 8D



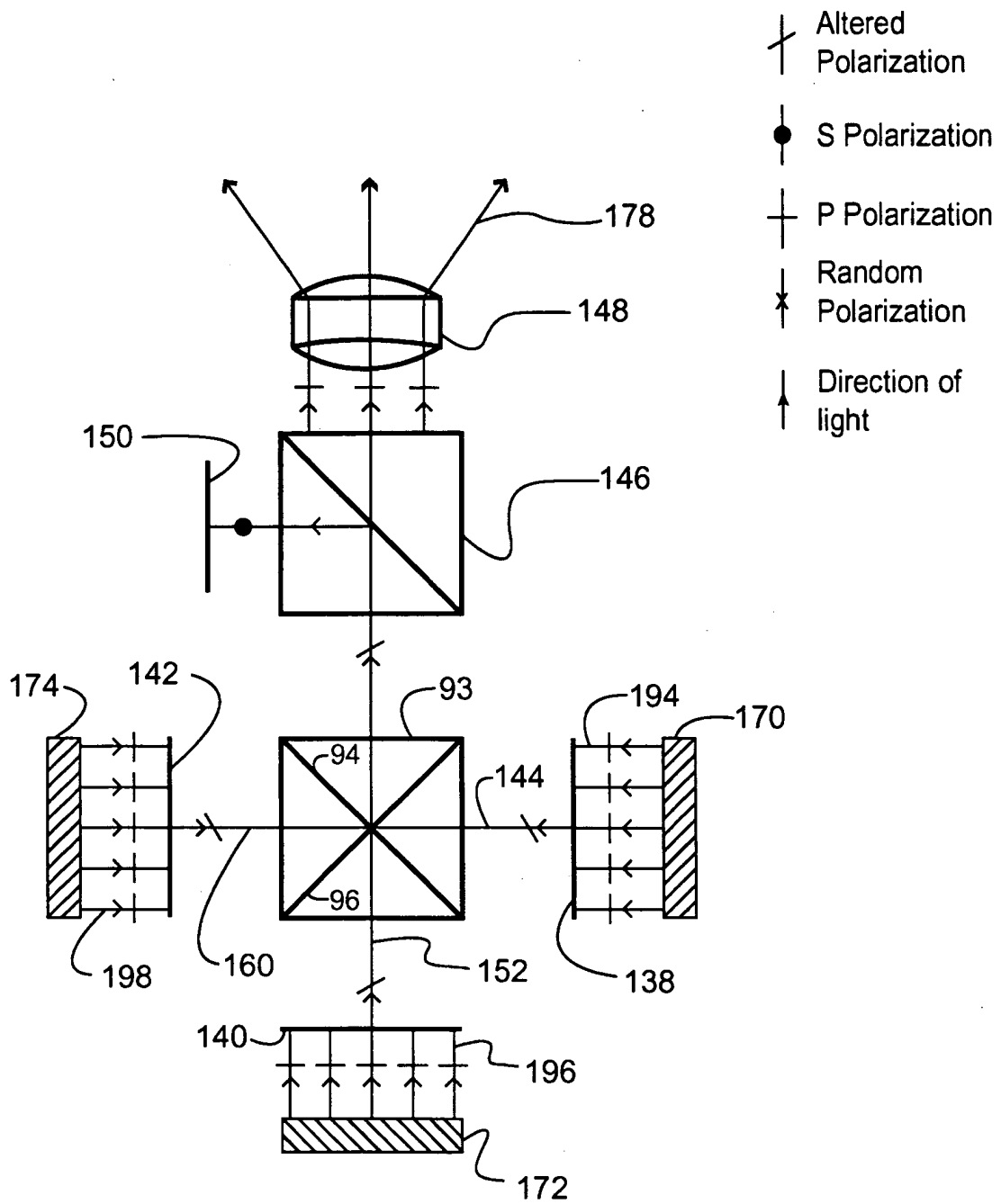


Fig. 8E

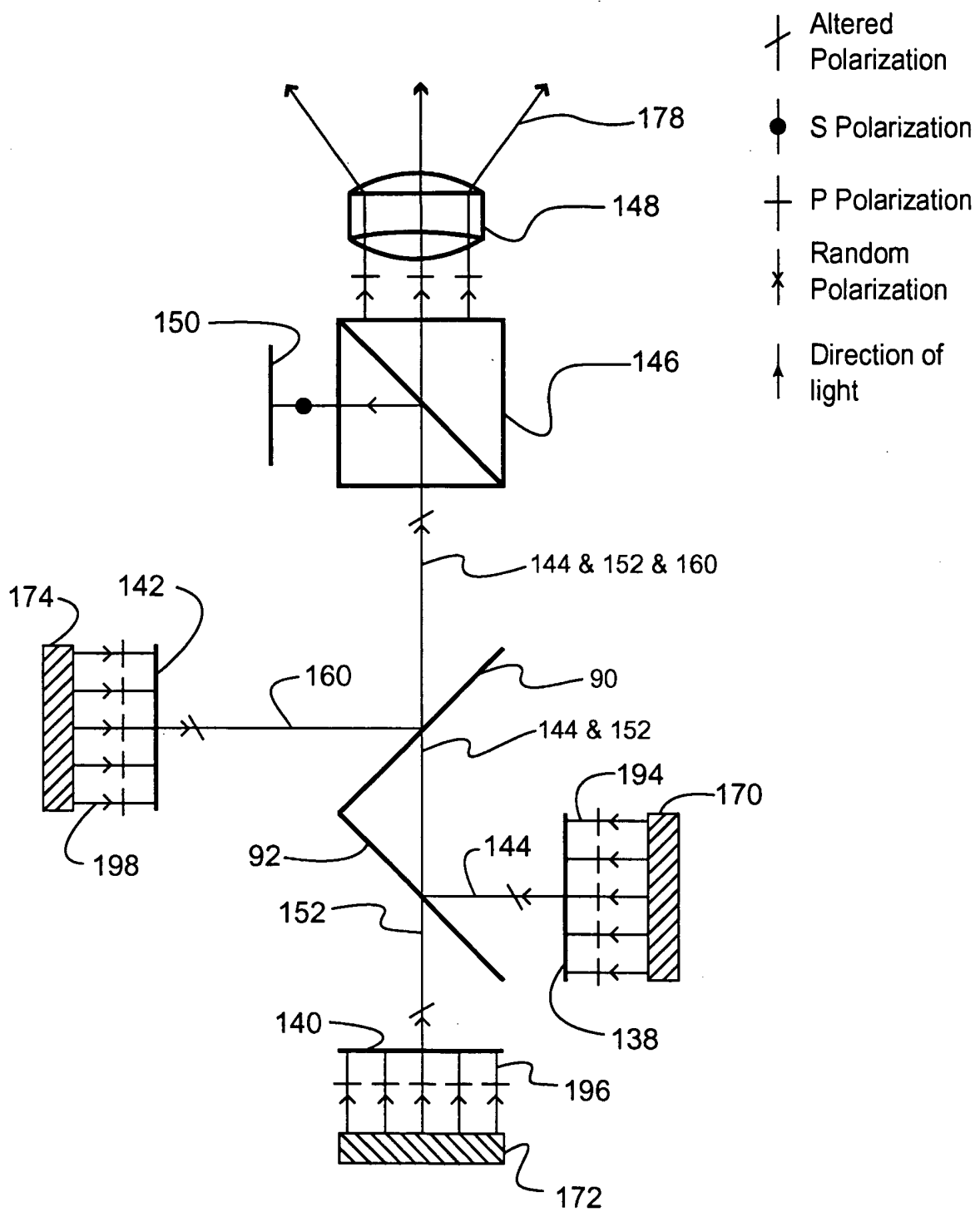


Fig. 8F

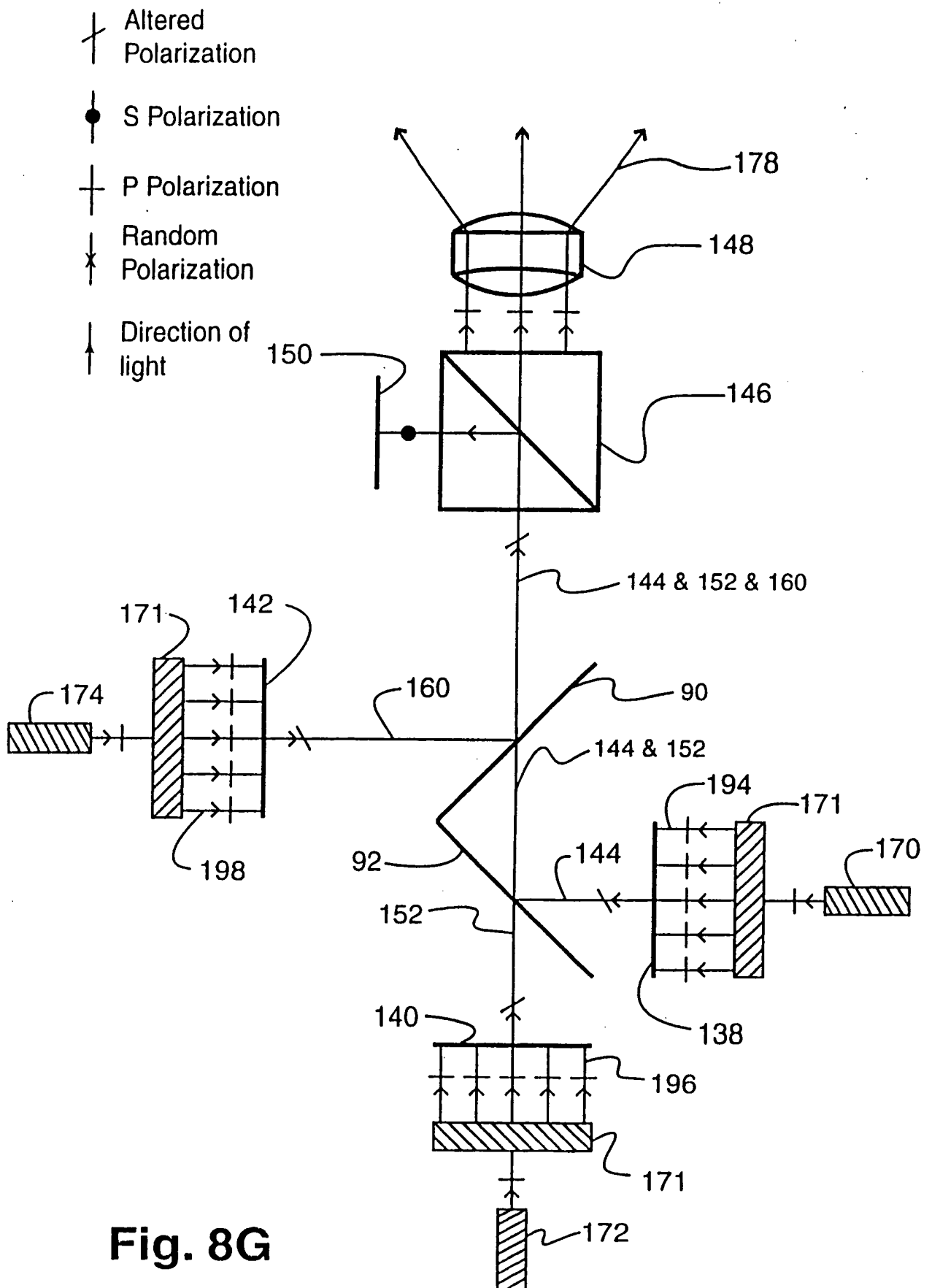


Fig. 8G

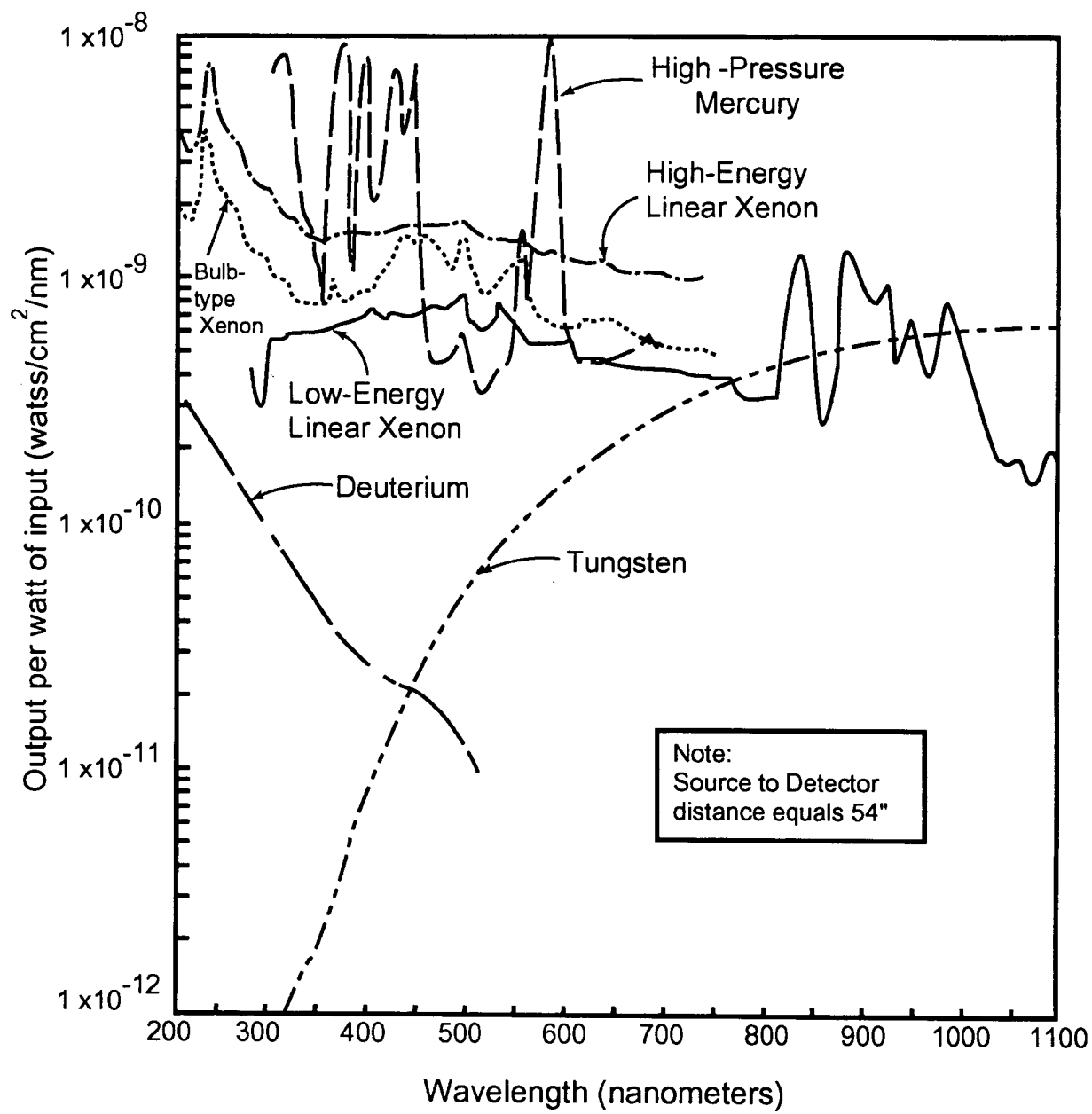


Fig. 9

| SOURCE TYPE | LUMENS / WATT (1 PW) | APPARENT COLOR TEMP (°K) | SOURCE SIZE OR TYPE | AVERAGE LUMINANCE (cd/mm ²) |
|--------------------------------------|----------------------|--------------------------|---------------------|---|
| NATURAL (observed from earth) | | | | |
| Sun | — | 5900K | — | 1600 |
| Moon | — | — | — | 0.0025 |
| Clear Sky | — | 12,000 to 25,000K | — | 0.008 |
| Overcast Sky | — | 6500K | — | 0.002 |
| Lightning Flash | — | — | — | 8x10 ⁴ |
| COMBUSTION | | | | |
| Candle flame | — | 2000K | 5x5mm | 0.01 |
| Kerosene Flame | — | — | 8x8mm | 0.012 |
| Natural Gas Flame | — | — | 12x12mm | 0.004 |
| Acetylene Flame | — | — | 4x4mm | 0.11 |
| Photoflash Lamp | — | 3800K | varies | 160 to 400 |
| NUCLEAR | | | | |
| Atomic Fission Bomb | — | — | 30 dia | 2x10 ⁶ |
| Self-Luminous Points | — | — | — | 2 or 3x10 ⁻⁷ |
| CARBON ARC | | | | |
| Flame Flame | 18 | 3800K | 5x5mm | 180 |
| High Intensity | 22 | 5500-6500K | 8x8mm | 500 to 1500 |
| ENCLOSED ARC | | | | |
| Compact high Pressure | | | | |
| Mercury (100W) | 20 | 8000K | 0.25x0.2mm | 1700 |
| Mercury (200W) | 50 | 7000K | 0.6x2.2mm | 400 |
| Mercury-Xenon (1000W) | 50 | 6000K | 1.5x4.2mm | 350 |
| Xenon(150W) | 19 | 6000K | 0.5x1.9mm | 180 |
| Xenon(1600W) | 37.5 | 6000K | 1.4x4.0mm | 800 |
| Xenon(20,000W) | 57 | 6000K | 3x11mm | 4800 |
| Metal Halide | | | | |
| HMI(1200W) | 92 | 5600K | 2.5x13mm | 120 |
| CSI (1000W) | 80 | 4200K | 5x9mm | 80 |
| CID (1000W) | 62 | 5500K | 5x9mm | 65 |
| MARC 300 | 45 | 5000K | 1x3mm | 400 |
| Zirconium | 2.5 | 3200K | 1.5mm dia | 46 |
| Argon | 17 | 7000K | 3x10mm | 1400 |
| High Intensity Discharge (HID) | | | | |
| Clear Mercury (400W) | 52 | 6000K | 20x68mm | 1.5 |
| Metal Halide (400W) | 85 | 4500K | 20x40mm | 4.2 |
| High Pressure | | | | |
| Sodium (400W) | 125 | 2100K | 8.8x87mm | 6.5 |
| Low Pressure | | | | |
| Fluorescent (cool white) | | | | |
| 430 ma | 80 | 4300K | T12 Bulb | 0.008 |
| 800 ma | 82 | 4300K | T12 Bulb | 0.011 |
| 1500 ma | 70 | 4300K | T12 Bulb | 0.017 |
| Sodium | 150 | 1700K | | .1 |
| ELECTROLUMINESCENT | | | | |
| Green @ 60 Hertz Green | — | — | — | 3x10 ⁻⁵ |
| Green @ 400 Hertz Green | — | — | — | 7x10 ⁻⁵ |
| INCANDESCENT | | | | |
| Carbon Filament | 3 | 2000K | C6 or C8 | 0.5 |
| Tantalum filament | 6 | 2200K | C6 or C8 | 0.7 |
| Tungsten Filament | | | | |
| Vacuum Lamp | 10 | 2600K | C6 or C8 | 2.0 |
| Gas Filled Lamps | 20 | 3000K | CC6 or CC8 | 12 |
| (includes tungsten | 26 | 3200K | CC6 or CC8 | 24 |
| halogen lamps) | 33 | 4300K | CC6 or CC8 | 36 |

Fig. 9A

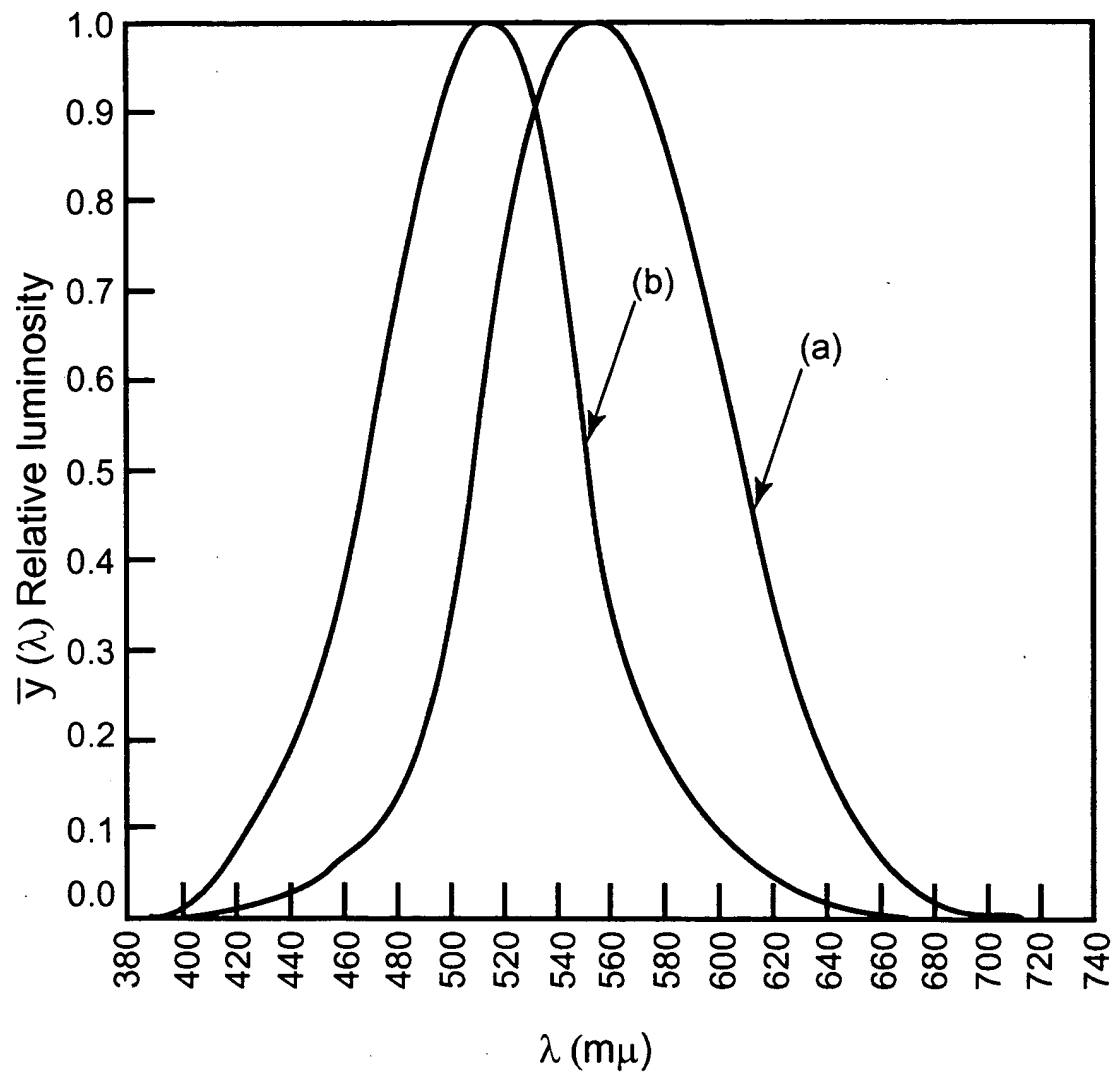


Fig. 10

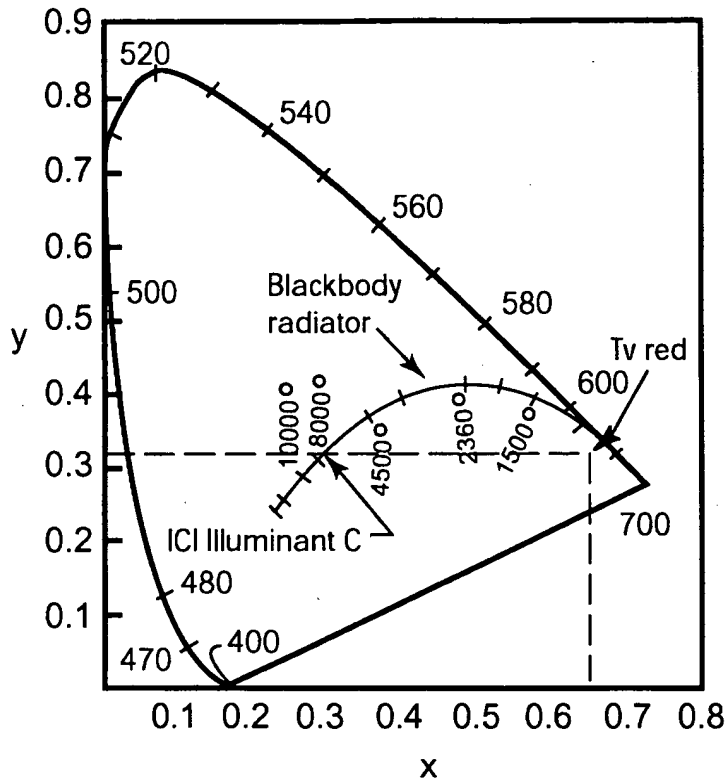


Fig. 10A

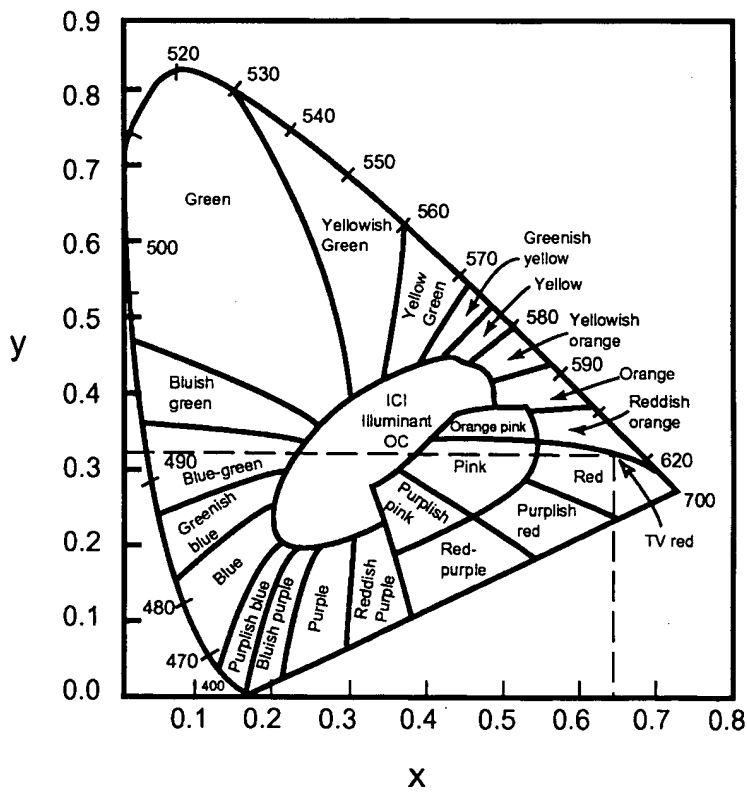


Fig. 10B

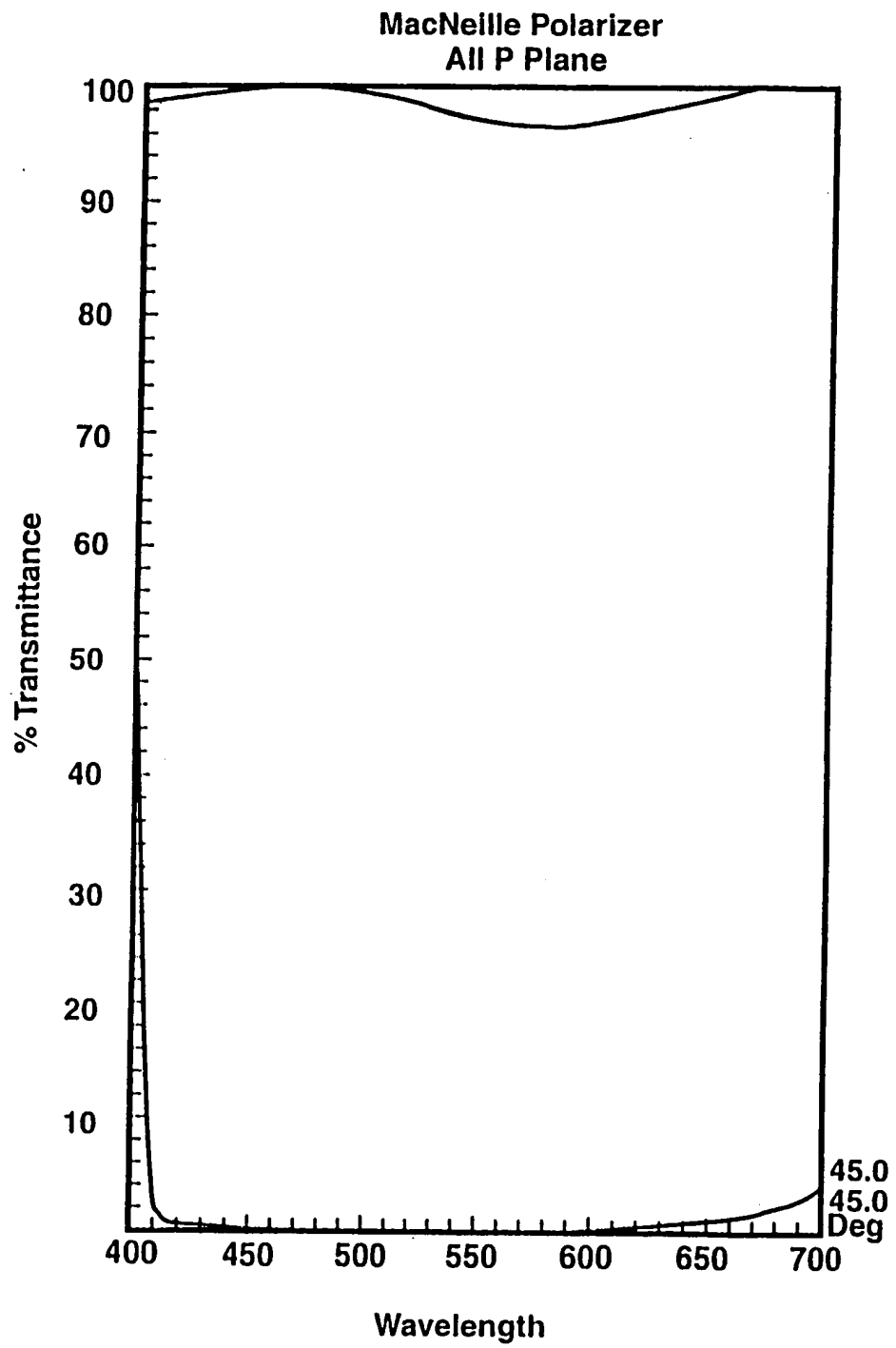


Fig. 11

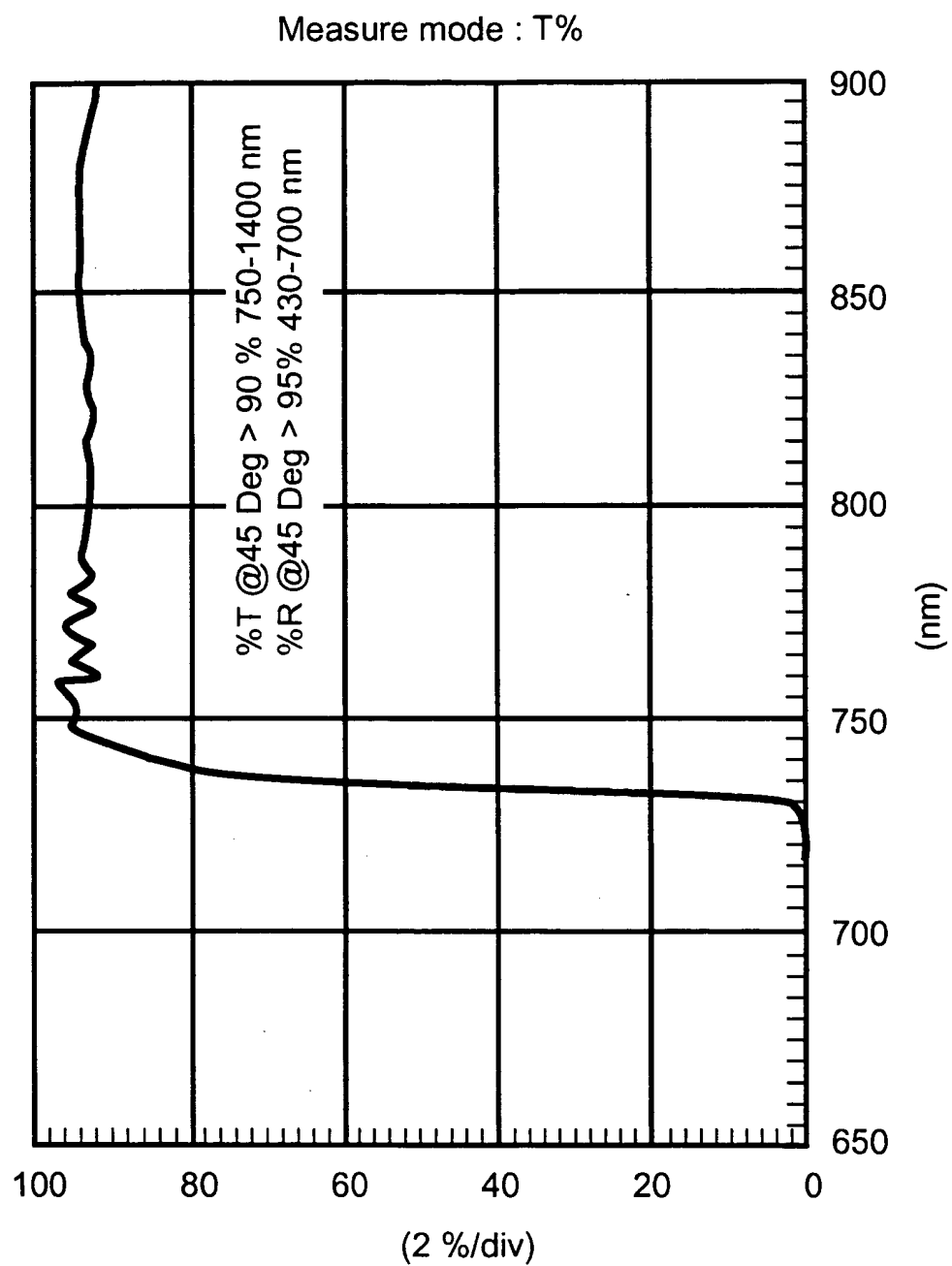


Fig. 12

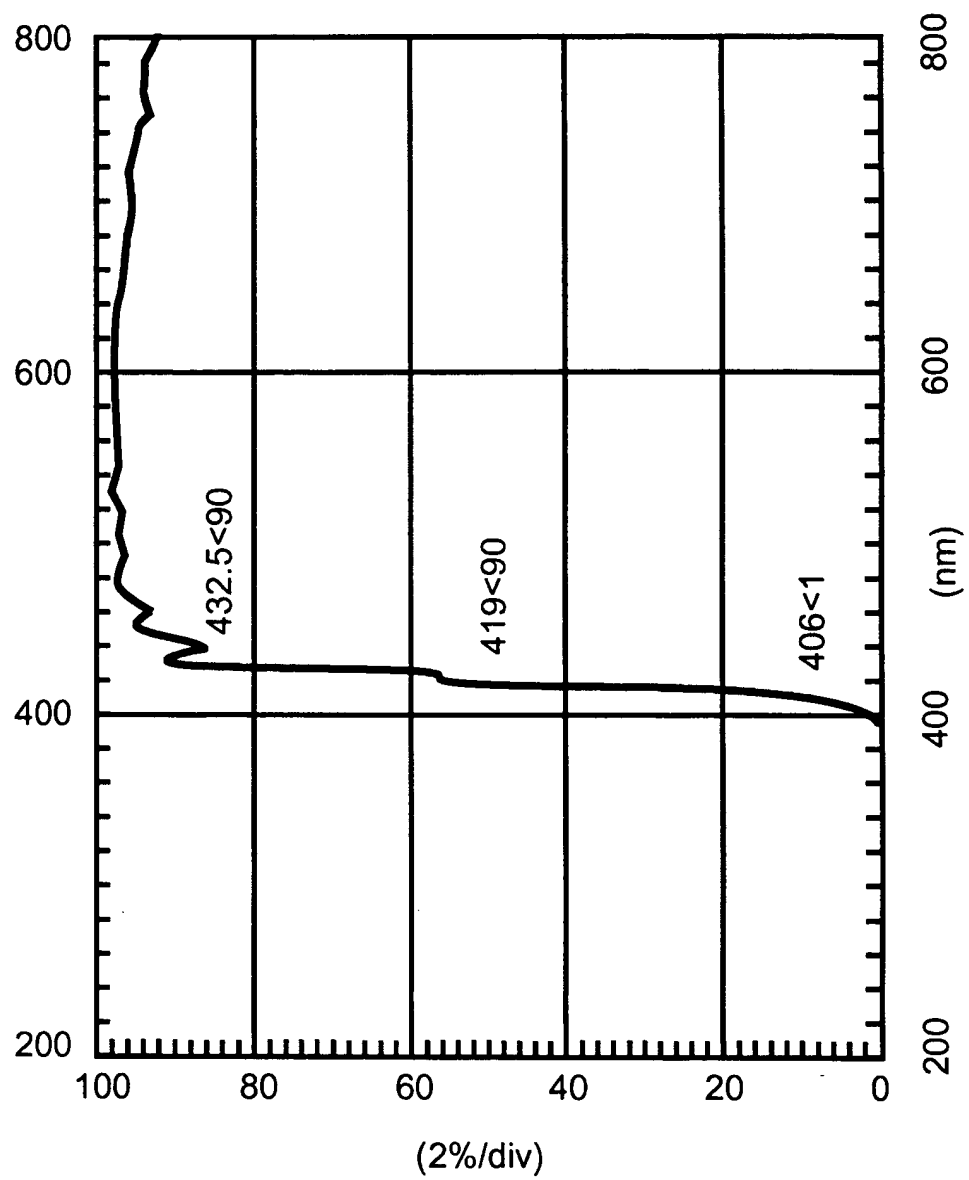


Fig. 13

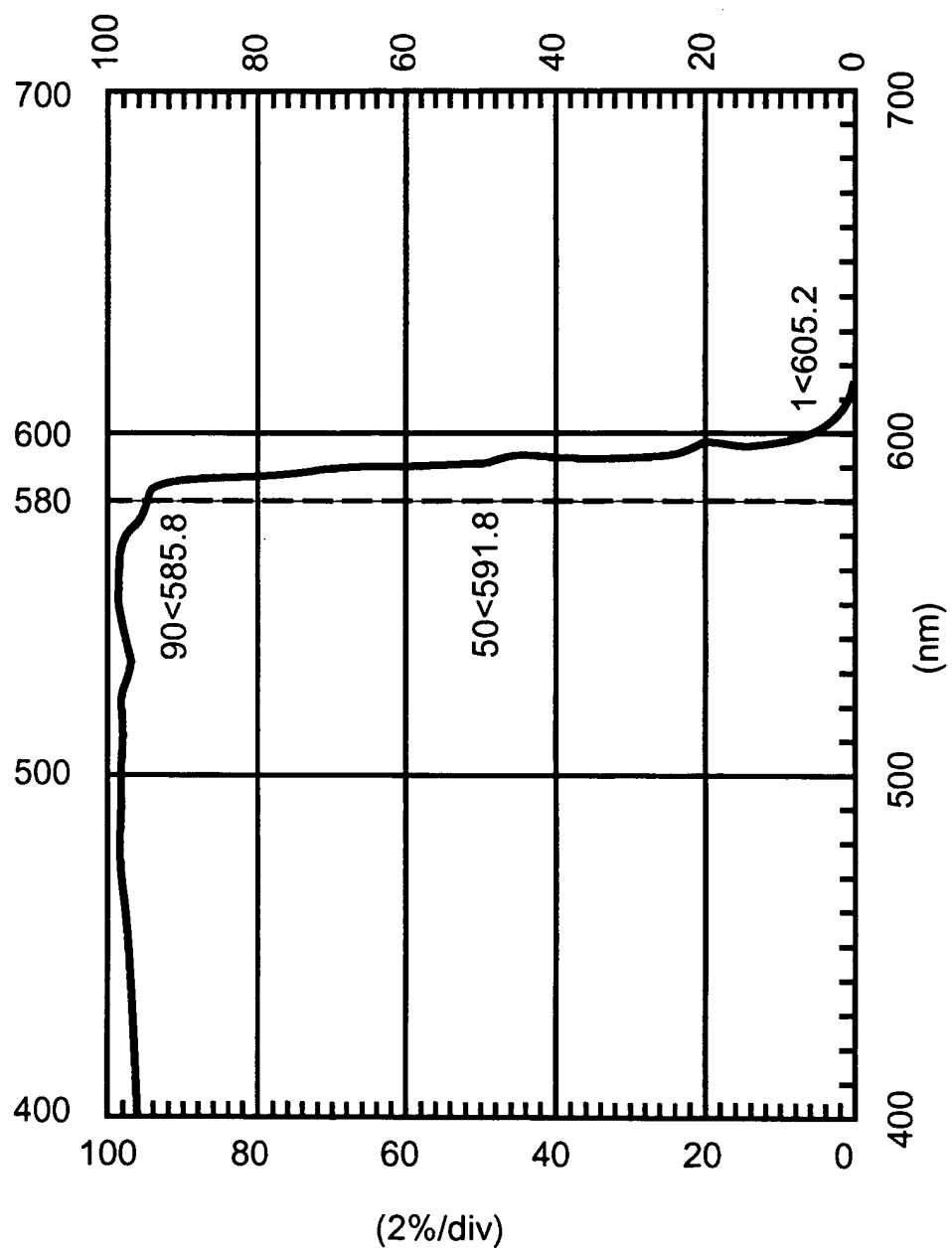


Fig. 14

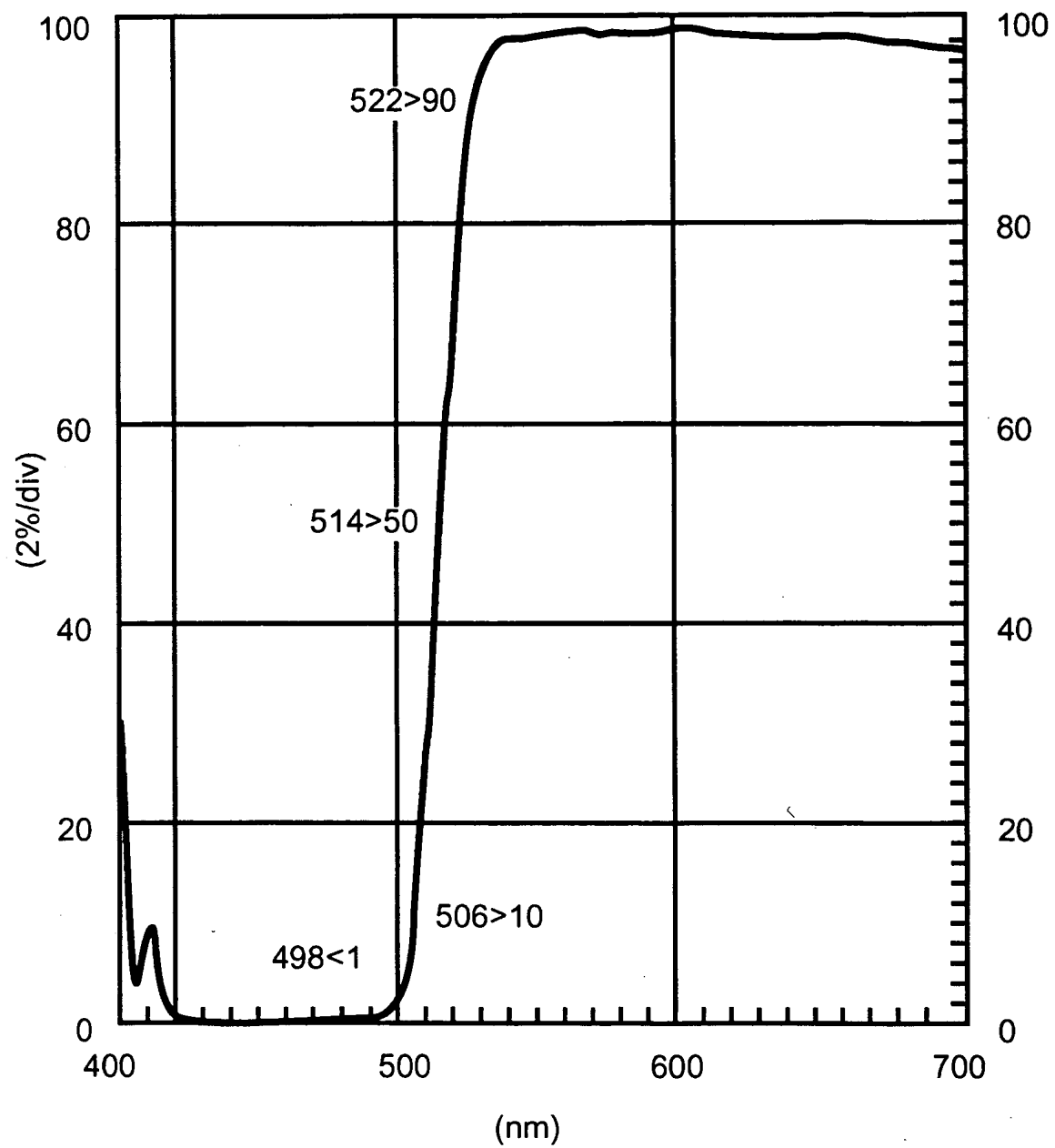


Fig. 15

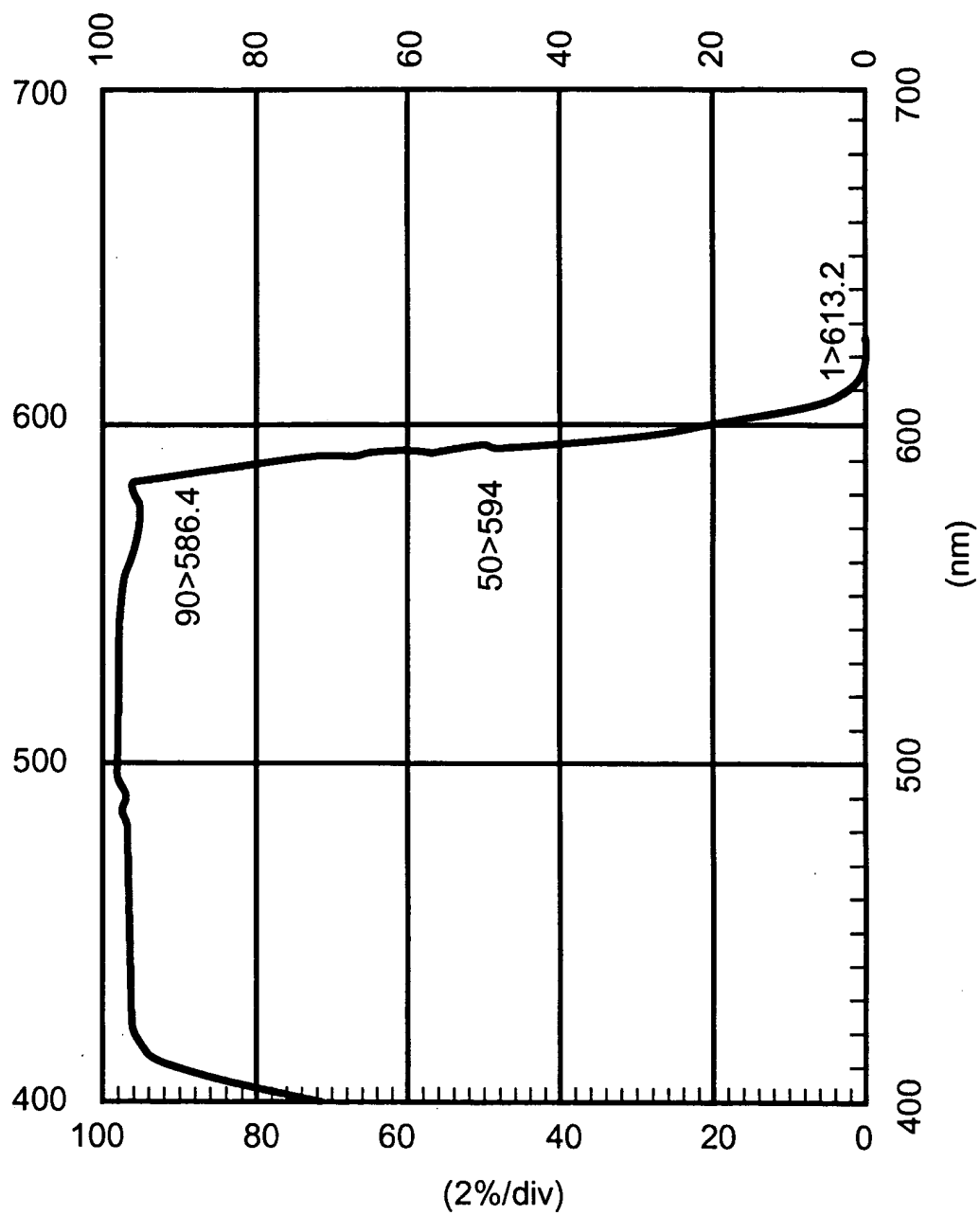


Fig. 16

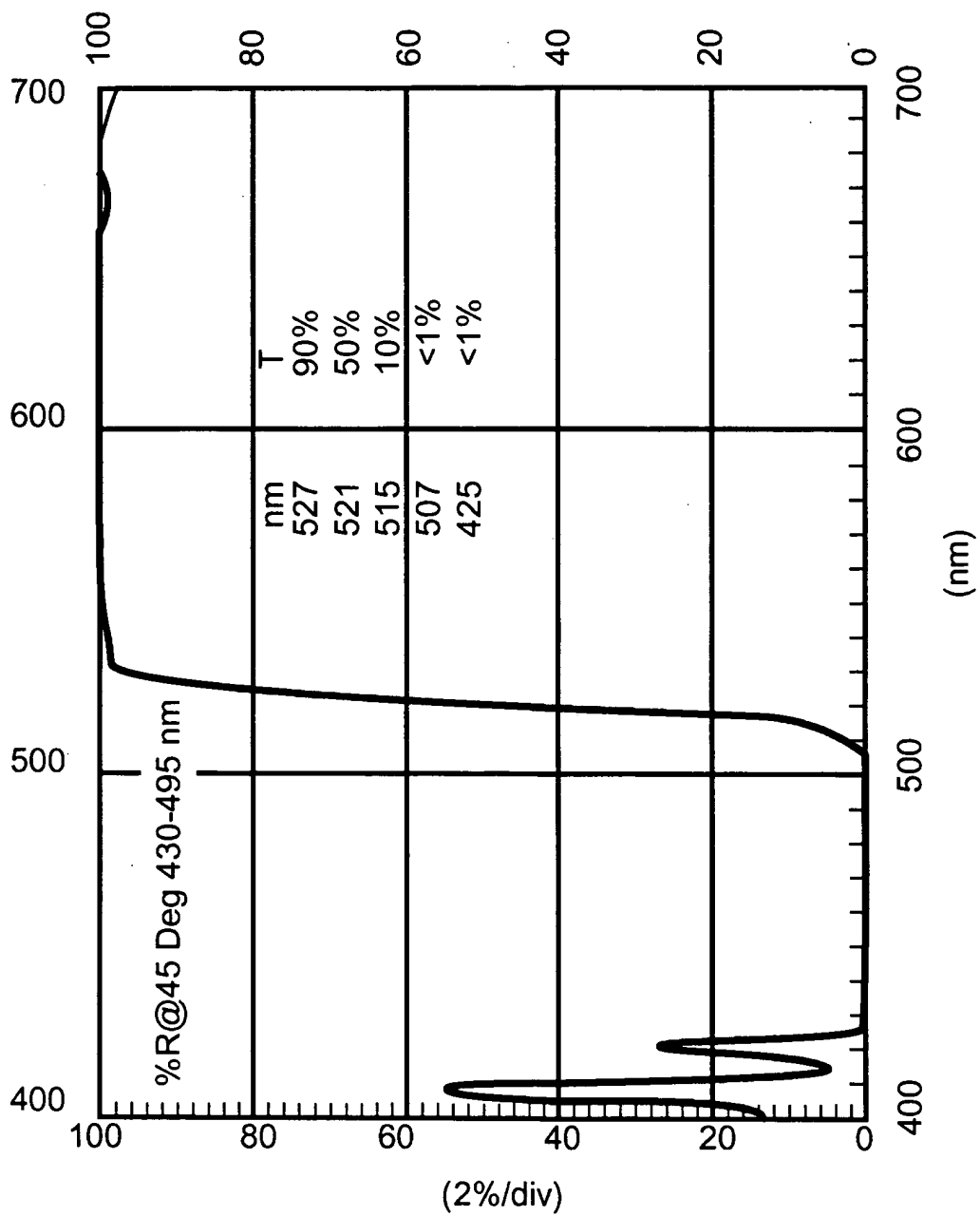


Fig. 17

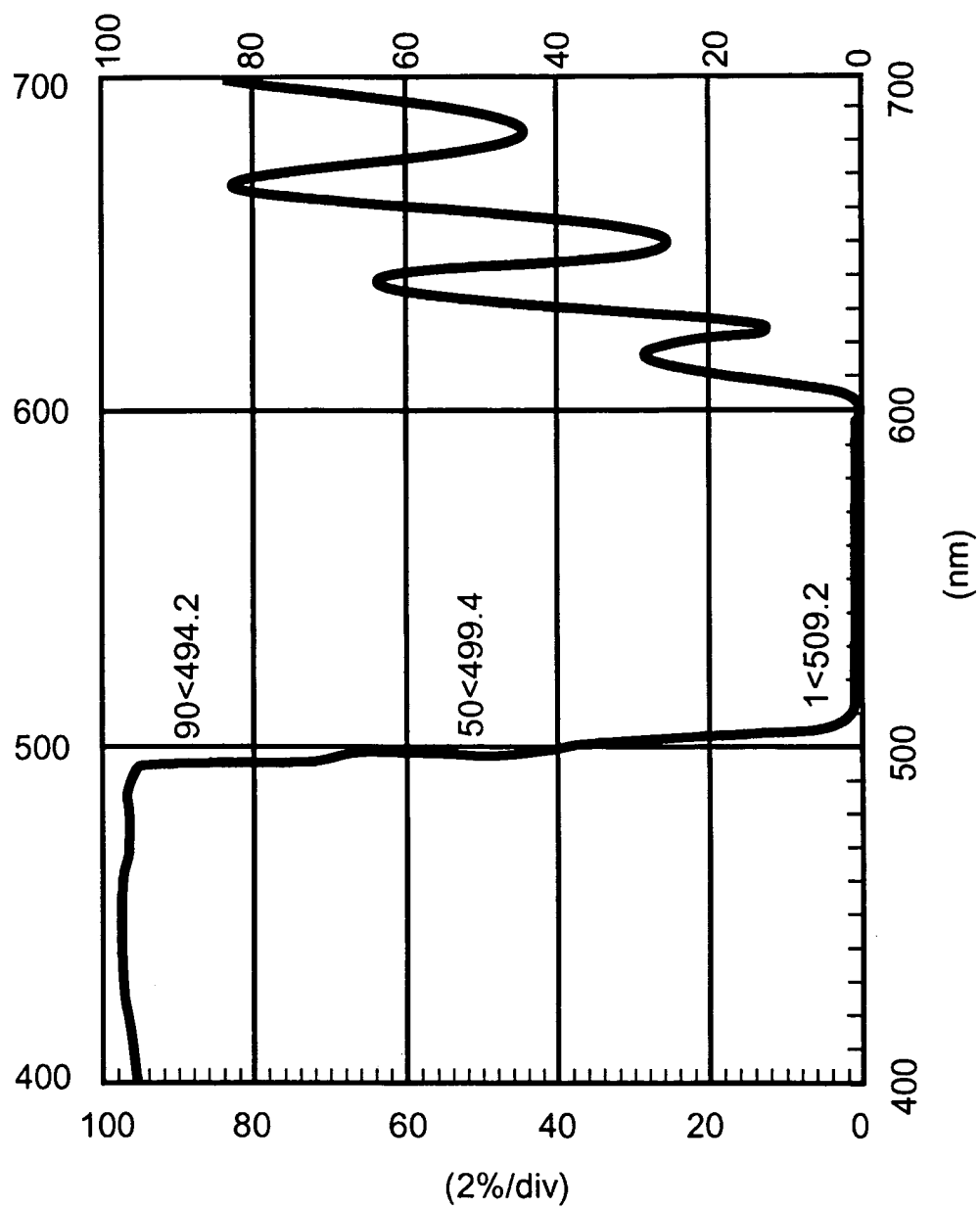


Fig. 18

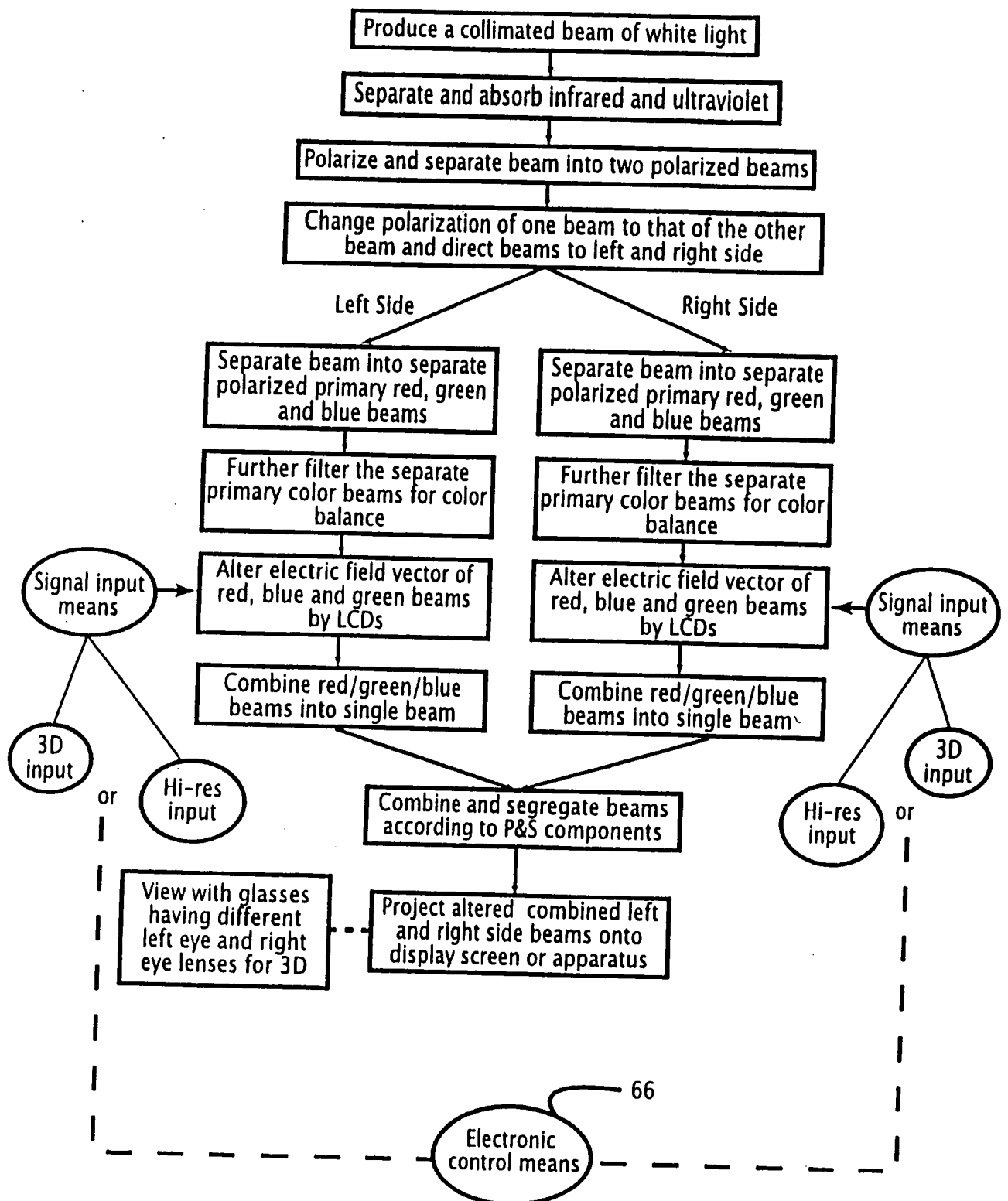


Fig. 19

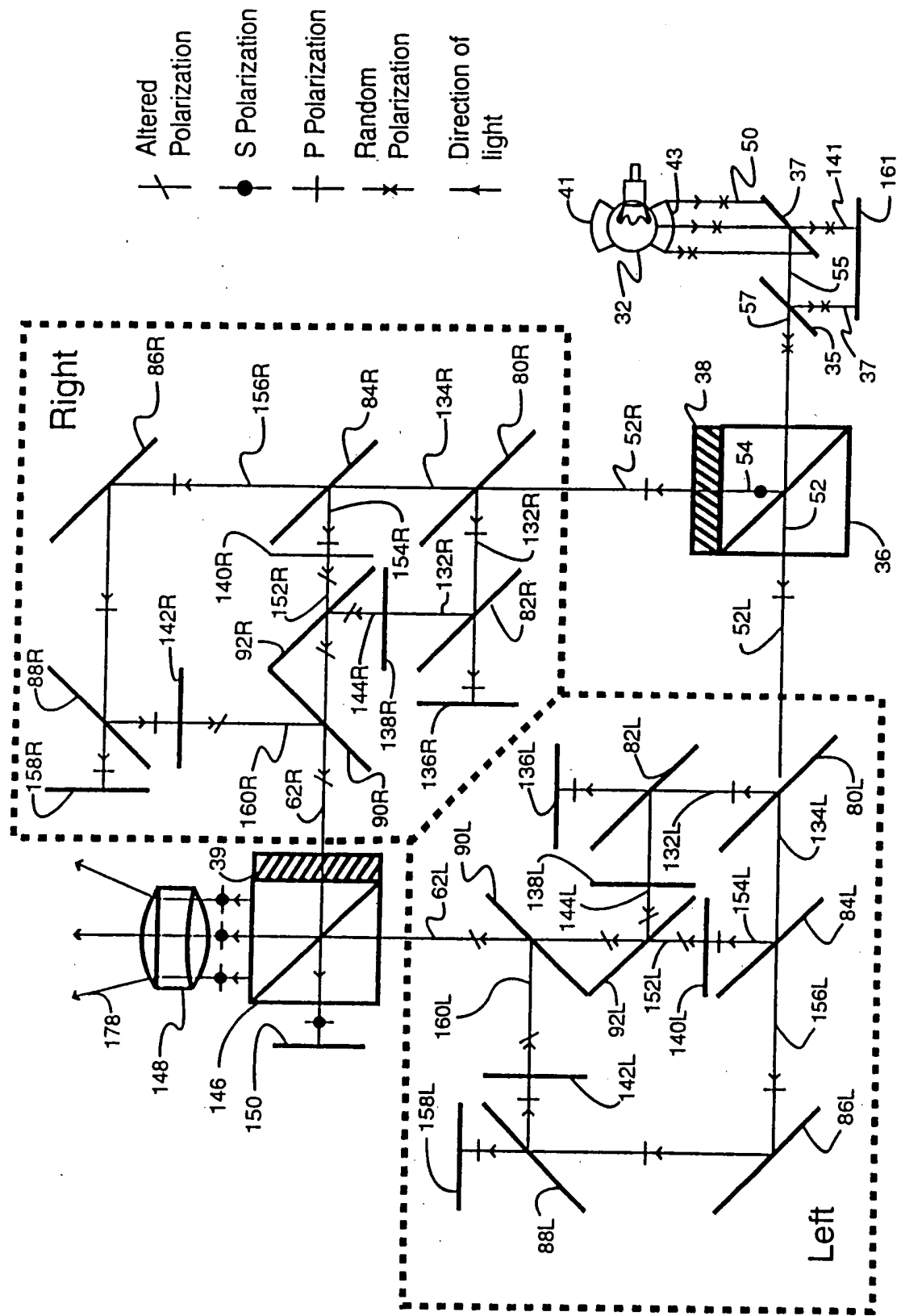


Fig. 20

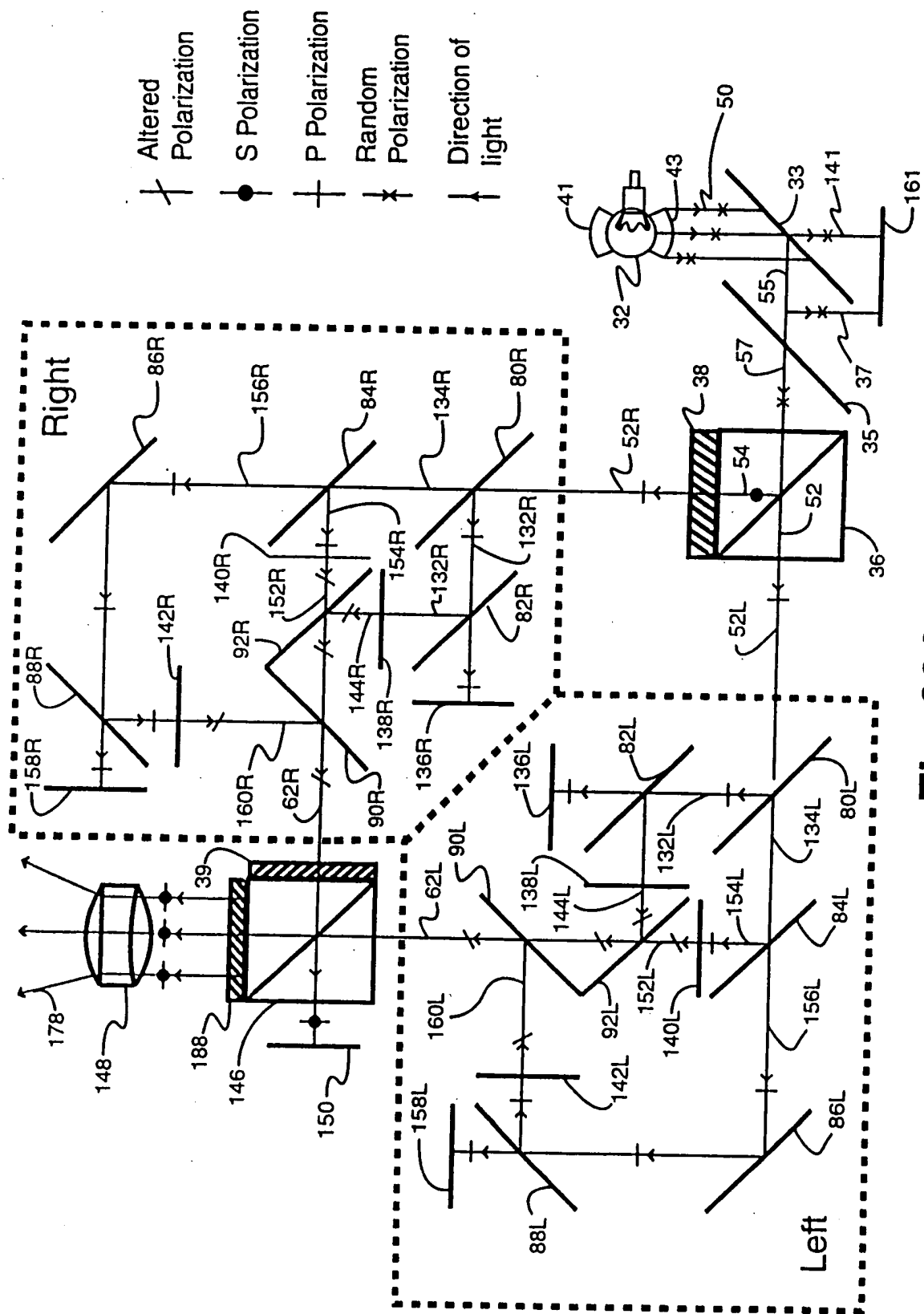
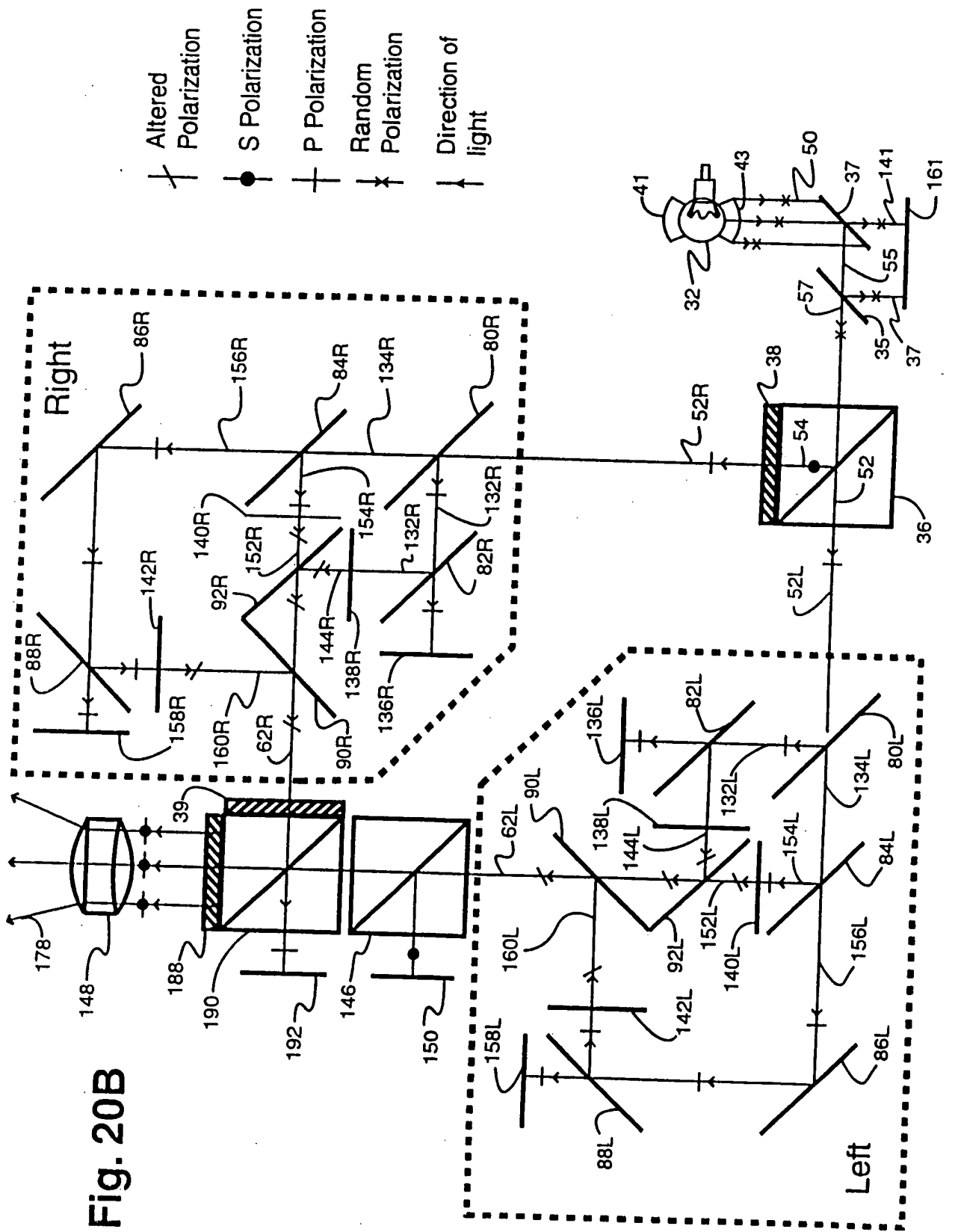
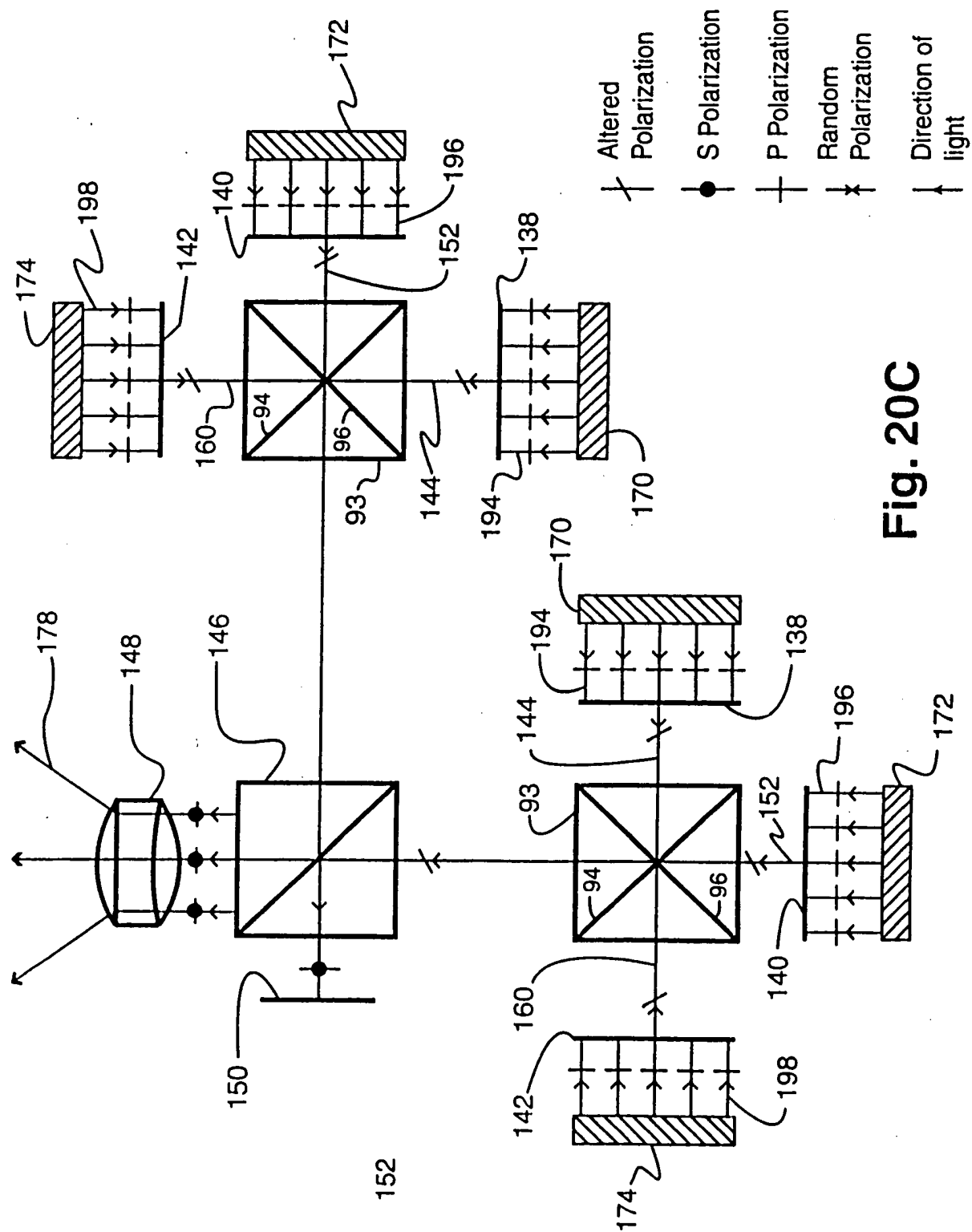


Fig. 20A

Fig. 20B





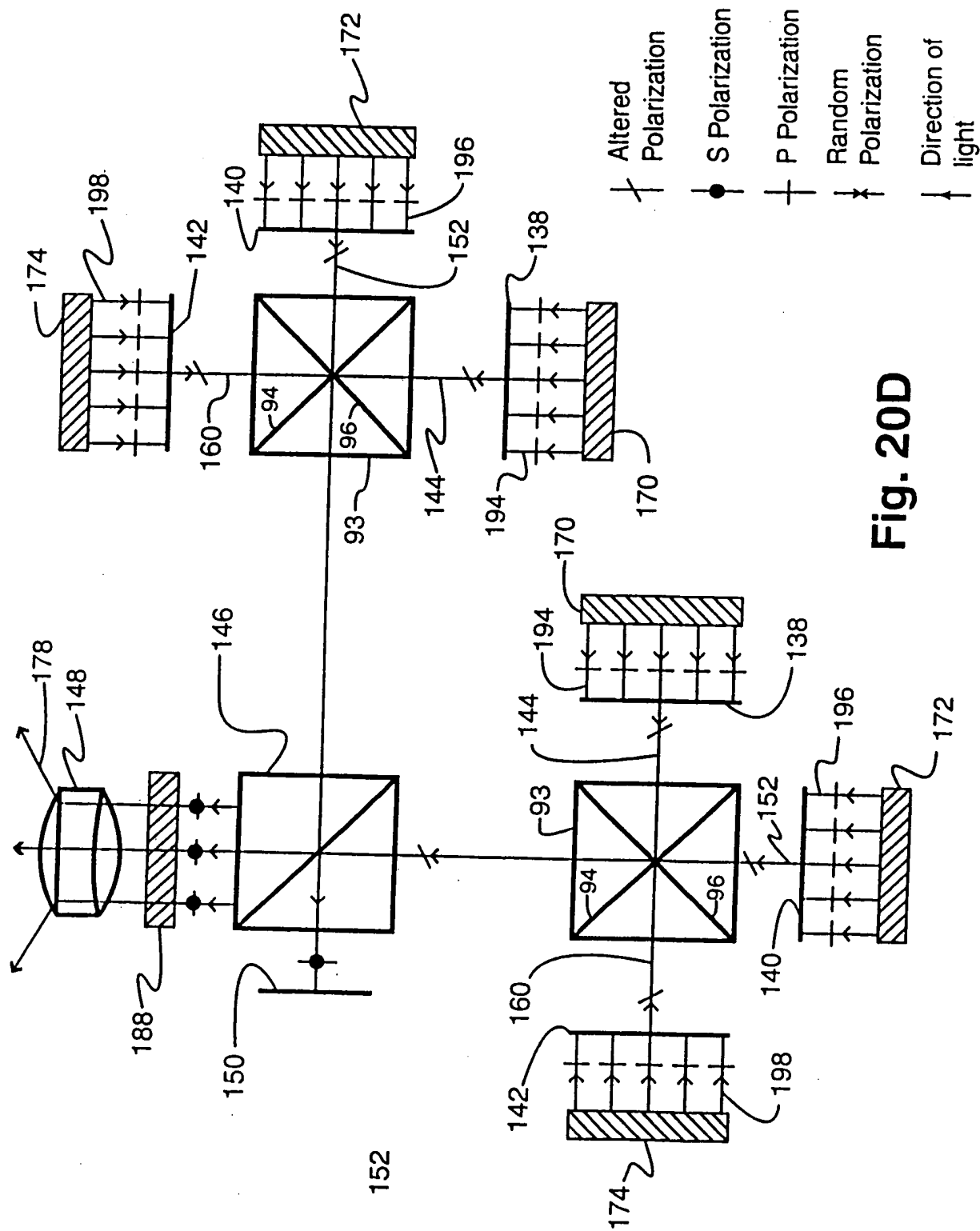


Fig. 20D

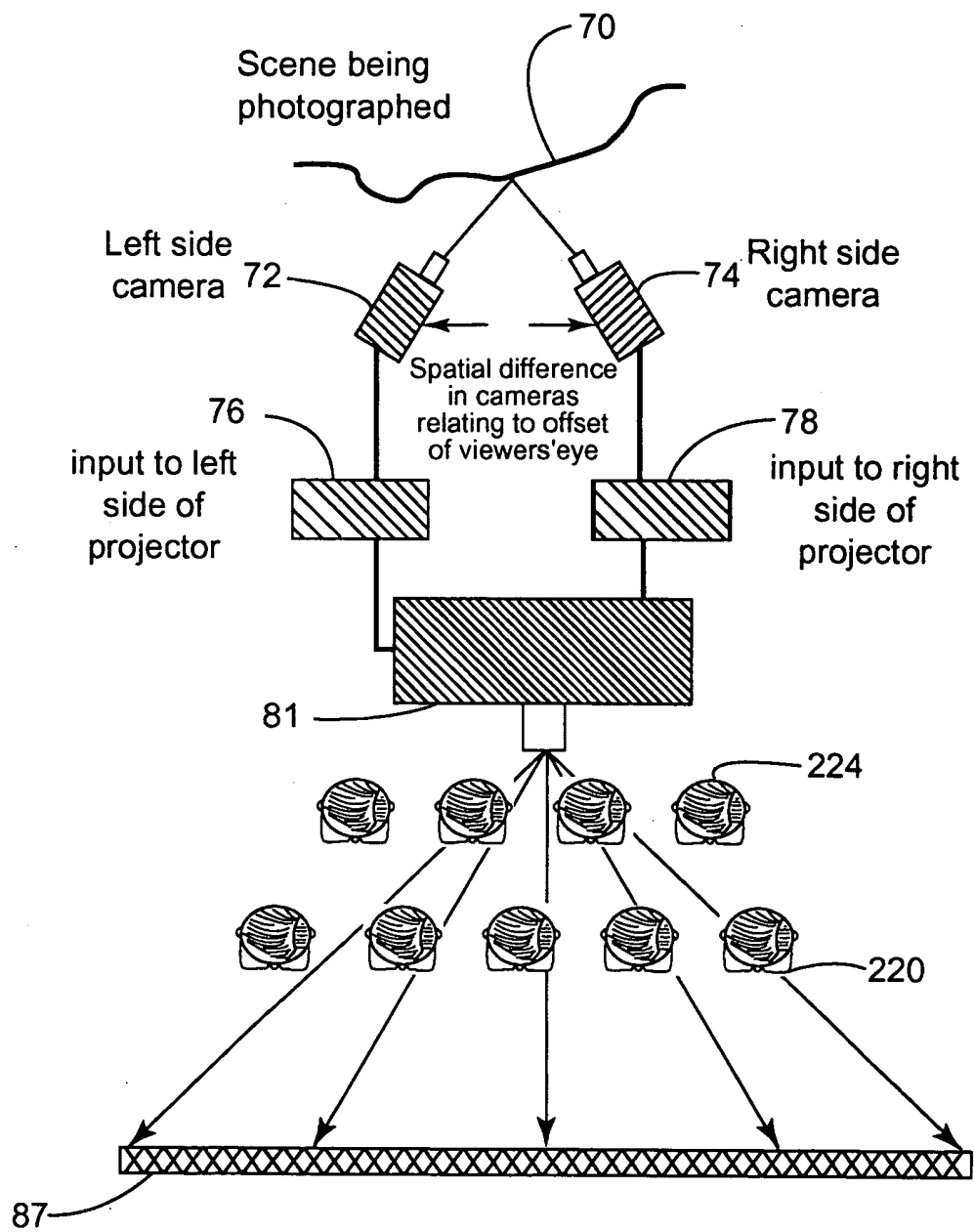


Fig. 21

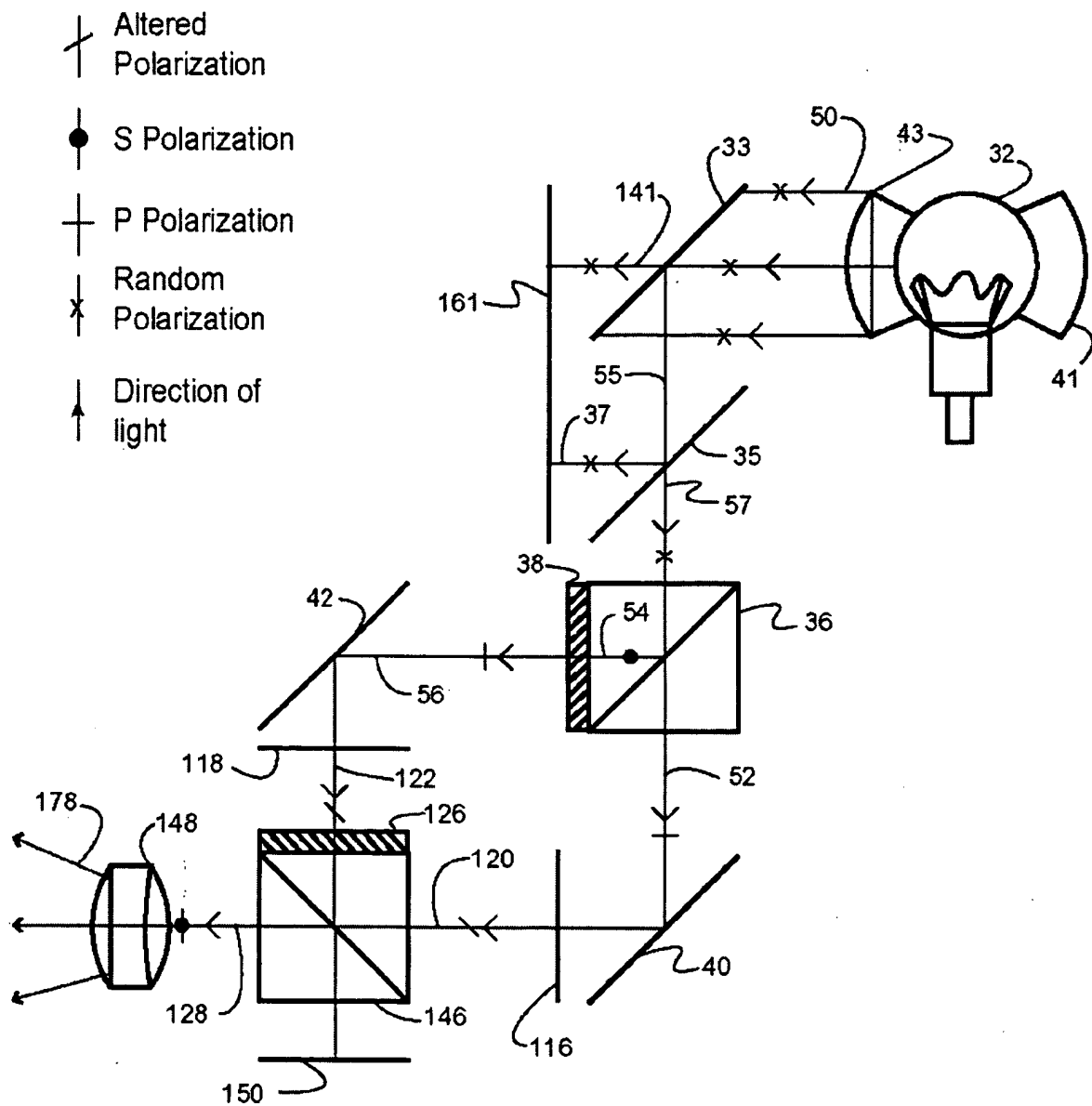


Fig. 22

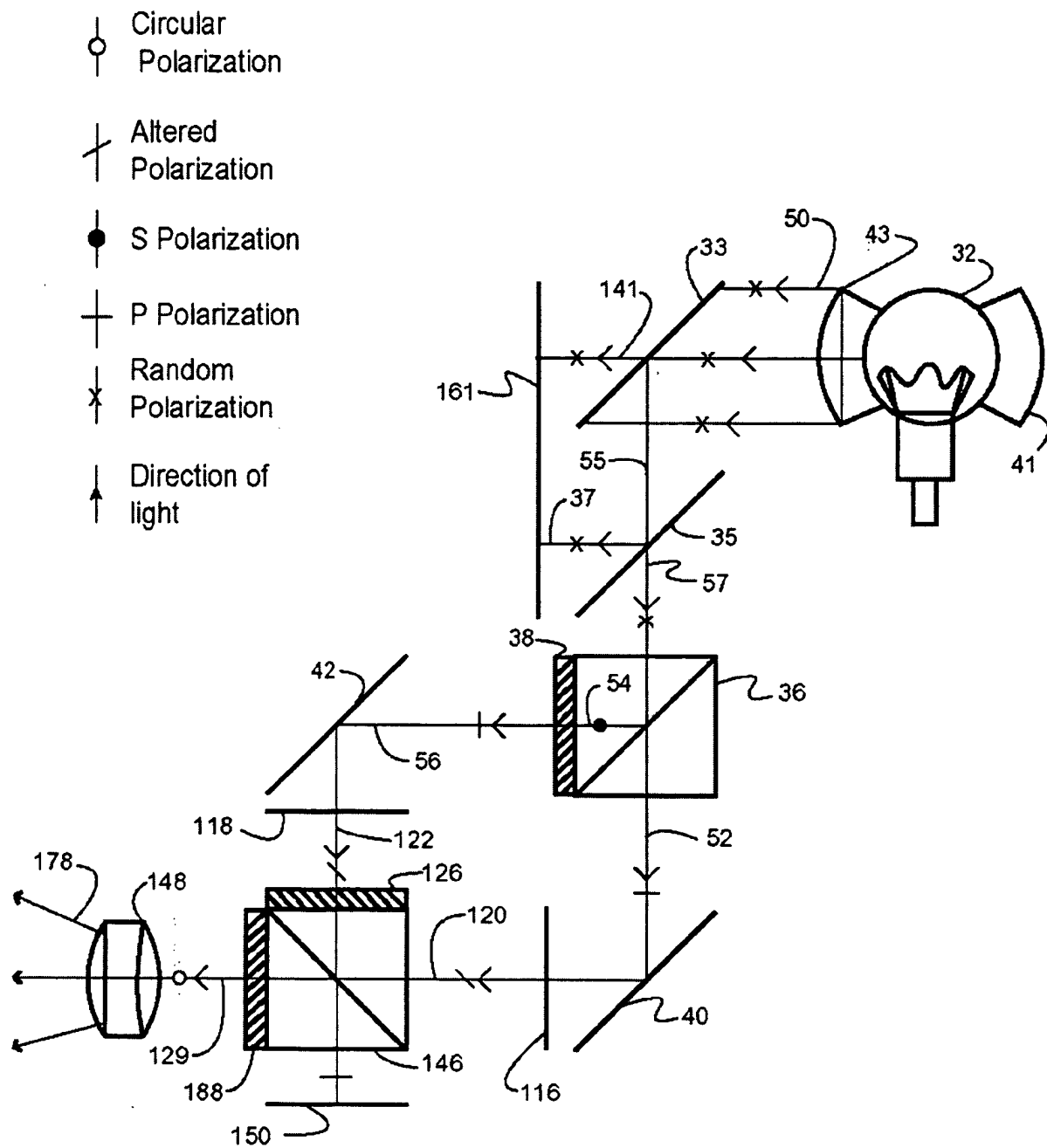


Fig. 22A

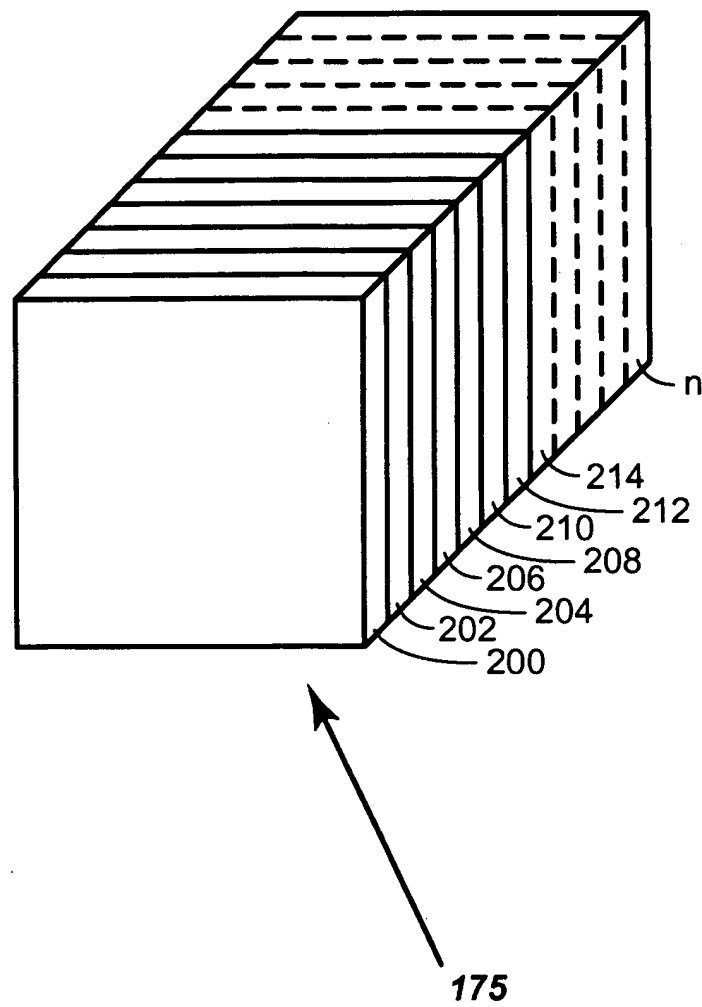


Fig. 23

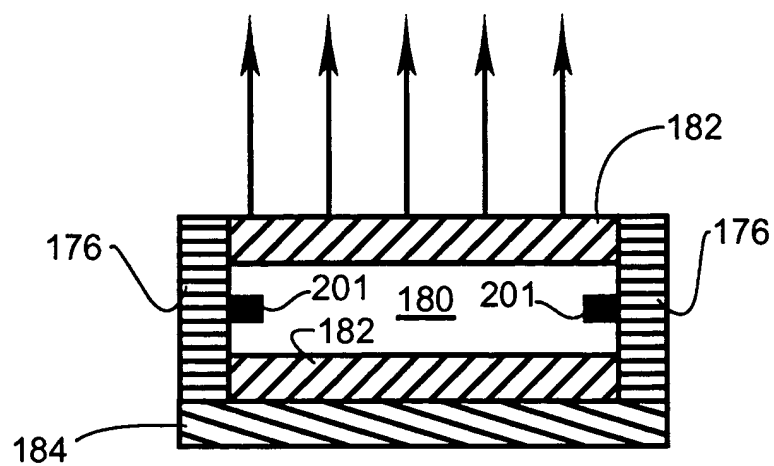


Fig. 24

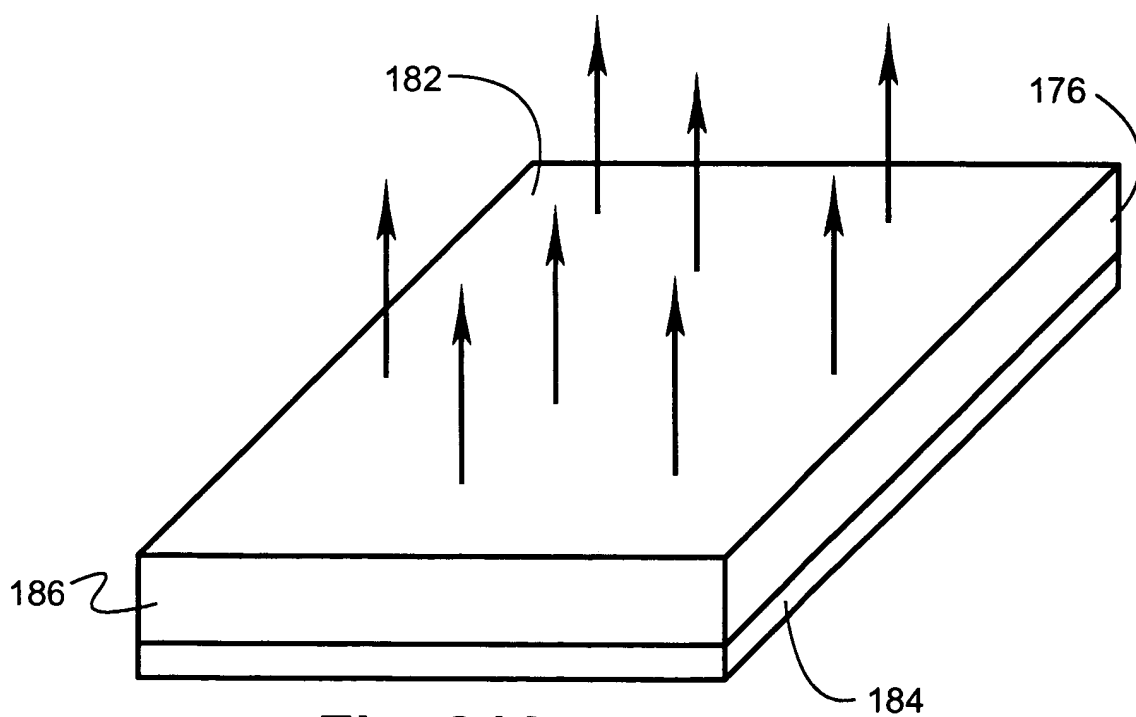


Fig. 24A

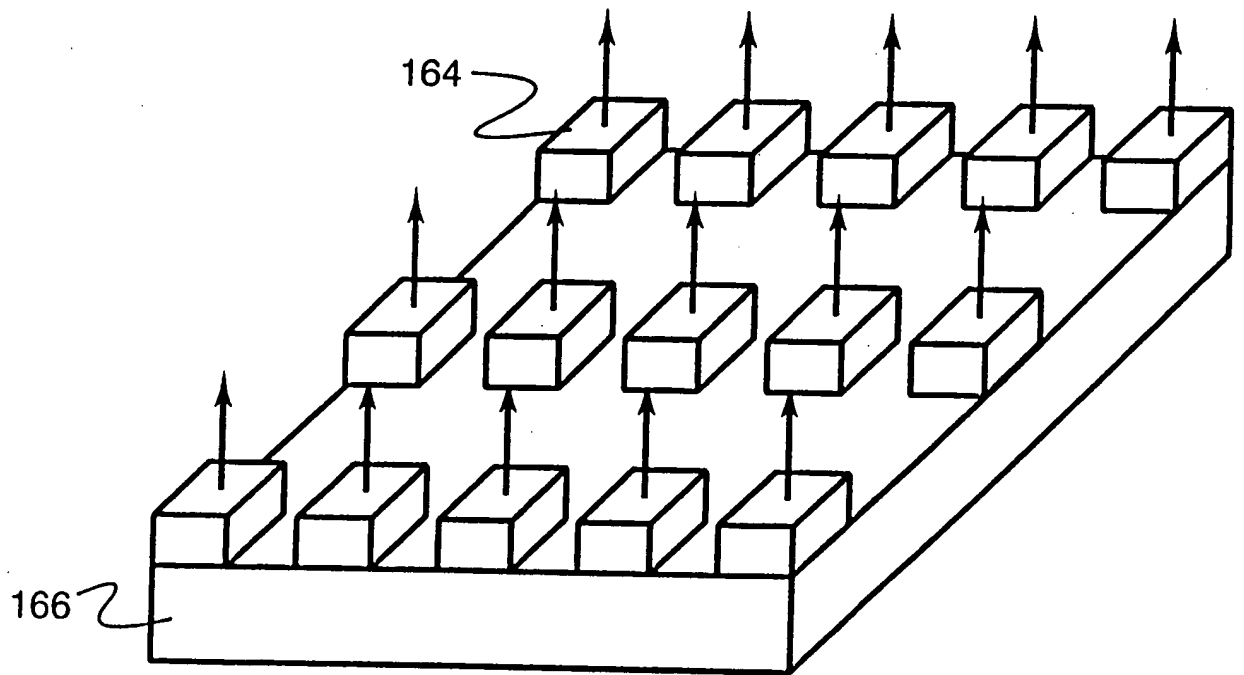


Fig. 25

| PART NO. | FIG NO. | TYPE OF MIRROR | SYSTEM USEAGE | >NM TRANS -MISSION | <NM TRANS -MISSION | >NM REFLEC- TION | <NM REFLEC- TION |
|----------|---------|----------------|--------------------------|--------------------|--------------------|------------------|------------------|
| 33 | 12 | CUTOFF | IR FILTER | 700 | | | 700 |
| 35 | | CUTOFF | UV FILTER | 430 | | | 430 |
| 40 | | BROADBAND | MAIN BEAM REFLECTOR | | | 400 | |
| 42 | | BROADBAND | MAIN BEAM REFLECTOR | | | 400 | |
| 44 | | BROADBAND | MAIN BEAM REFLECTOR | | | 400 | |
| 46 | | BROADBAND | MAIN BEAM REFLECTOR | | | 400 | |
| 80 | 14 | BANDPASS | RED SPLITTER | | 585 | 595 | |
| 84 | 18 | BANDPASS | GREEN SPLITTER | | 490 | 500 | |
| 86 | 15 | CUTOFF | BLUE REFLECTOR | 495 | | | 490 |
| 82 | 14 | BANDPASS | RED REFLECTOR-- TUNER | | 590 | 605 | |
| 92 | 16 | BANDPASS | RED-GREEN COMBINER | | 585 | 615 | |
| 90 | 17 | CUTOFF | RED -GREEN/BLEU COMBINER | 525 | | | 500 |
| 88 | 15 | CUTOFF | BLUE REFLECTOR-- TUNER | 490 | | | 485 |

Fig. 26

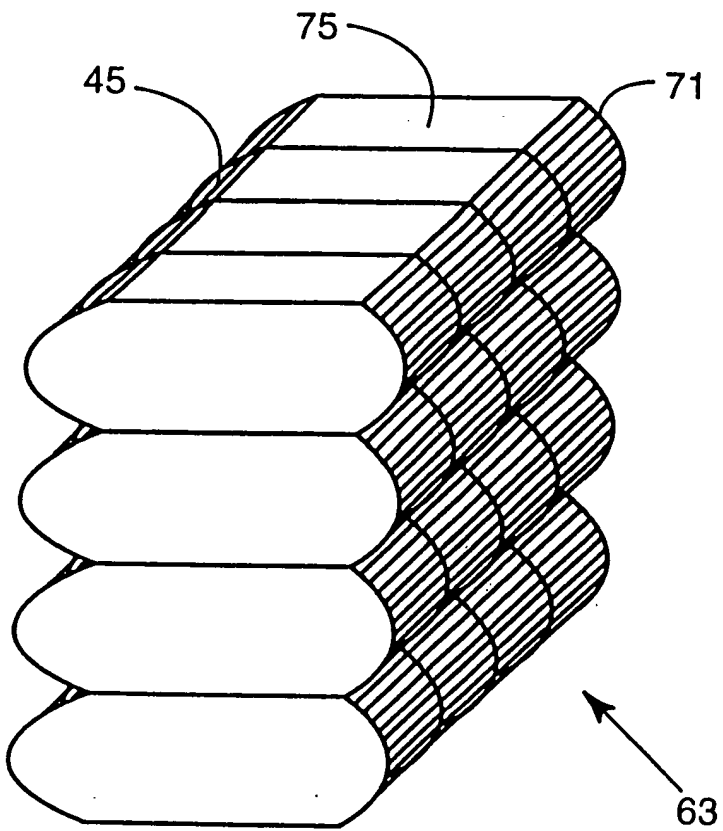


Fig. 27

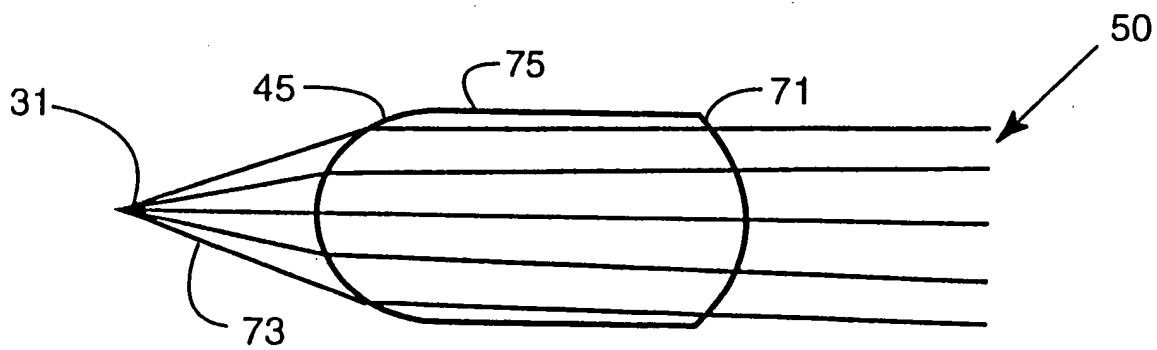


Fig. 27A

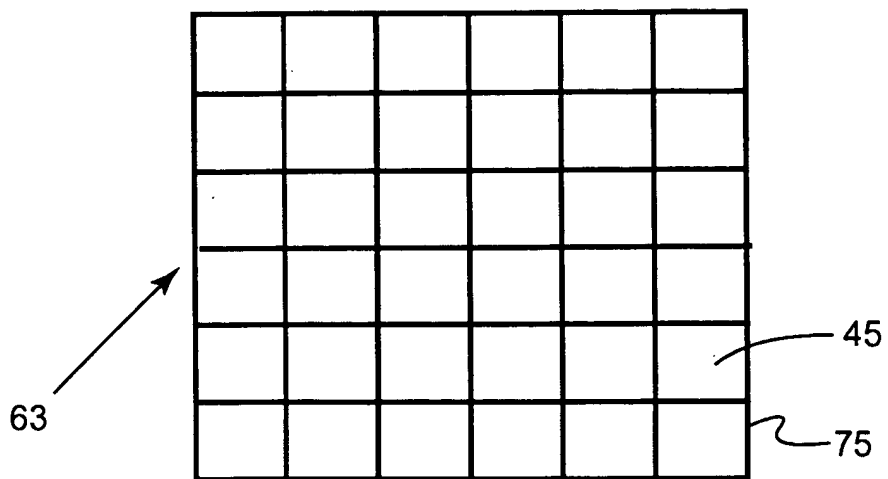


Fig. 27B

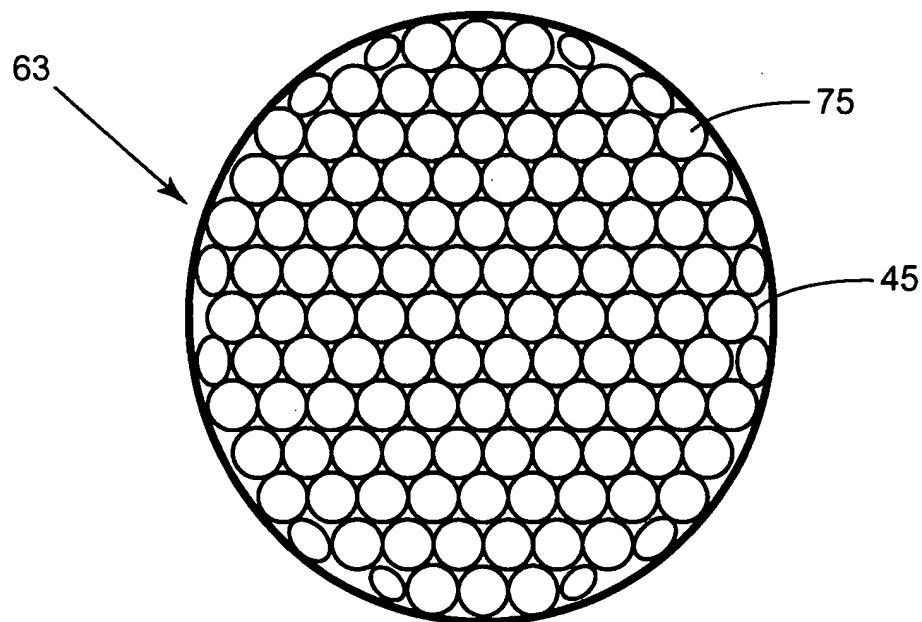


Fig. 27C

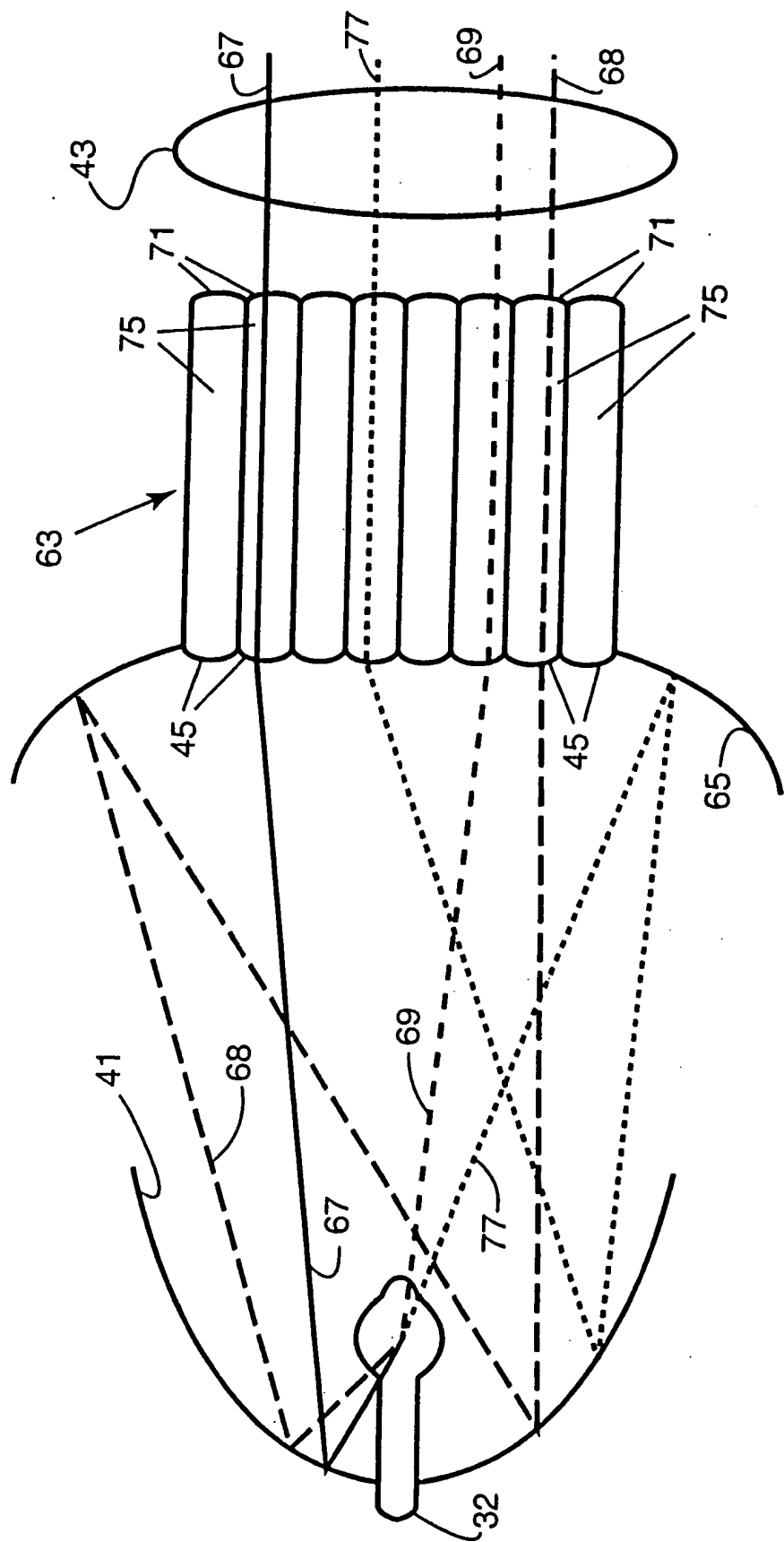


Fig. 28